INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: August 7, 2013

RE: Steel Dynamics, Inc. - Iron Dynamics Division/033-33415-00076

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 approval 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) calendar 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.

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

Enclosures
FNPER-MOD.dot 6/13/2013

IDEM

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Mr. Barry Smith
Steel Dynamics, Inc. - Iron Dynamics Division
4500 County Road 59
Butler, IN 46721

August 7, 2013

Re: 033-33415-00076
Minor Source Modification to
Part 70 No.: T033-12614-00076

Dear Mr. Smith:

Steel Dynamics, Inc. - Iron Dynamics Division was issued a Part 70 Operating Permit No. T033-12614-00076 on October 4, 2006 for a stationary Direct Reduced Iron (DRI) manufacturing operation at a steel minimill located at 4500 County Road 59, Butler, Indiana 46721. An application to modify the source was received on July 11, 2013. Pursuant to the provisions of 326 IAC 2-7-10.5, a minor source modification to this permit is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

(a) One (1) RHF millings processing area, constructed in 2007 and permitted in 2013, with a nominal throughput of 100 tons per hour, and consisting of the following:

(1) One (1) storage pile, identified as RHF Millings Pile, with a nominal pile area of 41,250 square feet.

(2) One (1) surge bin, with a nominal throughput of 100 tons per hour.

(3) One (1) screen, with a nominal throughput of 100 tons per hour.

(4) One (1) storage pile, identified as RHF Midsize, Oversized, and Temporary Pile, with a nominal pile area of 14,000 square feet.

(5) One (1) stacker, with a nominal throughput of 100 tons per hour.

(6) One (1) storage pile, identified as RHF Byproduct / Blending Pile, with a nominal pile area of 95,850 square feet.

(7) Unpaved roads.

The following construction conditions are applicable to the proposed modification:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the

rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Commenced Construction
Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(j), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(m), the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

7. Approval to Construct and Operate
Pursuant to 326 IAC 2-7-10.5(f)(3) and 326 IAC 2-7-11, this minor source modification authorizes both the construction and operation of the new emission unit(s) when the minor source modification has been issued.

Operating conditions are incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(m)(1) and 326 IAC 2-7-11 (Administrative Amendment).

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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 Kristen Willoughby, of my staff, at 317-233-3031 or 1-800-451-6027, and ask for extension 3-3031.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit and Technical Support Document
JA/kw

cc: File - Dekalb County
Dekalb County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section
IDEM Northern Regional Office

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Commissioner

Minor Source Modification to a Part 70 Source
OFFICE OF AIR QUALITY

Steel Dynamics, Inc. – Iron Dynamics Division
4500 County Road 59
Butler, Indiana 46721

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

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.

Minor Source Modification No.: 033-33415-00076	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 7, 2013

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D.10.9 Record Keeping Requirements

D.11 FACILITY OPERATION CONDITIONS - Insignificant Activities

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

D.11.1 Particulate (PM/PM_{10}) (Particulate Matter Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report

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 Direct Reduced Iron (DRI) manufacturing operation at a steel minimill.

Source Address:	4500 County Road 59, Butler, Indiana 46721
Mailing Address:	4500 County Road 59, Butler, Indiana 46721
Phone Number:	260-868-8000
SIC Code:	3312
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD Rules Minor 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 consists of:

(a) Steel Dynamics, Inc., - Flat Roll Division, the primary operation, located at 4500 County Road 59, Butler, Indiana 46721; and

(b) Steel Dynamics, Inc. – Iron Dynamics Division, the supporting operation, located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033-8068-00043) and Steel Dynamics, Inc. – Iron Dynamics Division (033-12614-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. – Iron Dynamics Division, the supporting operation.

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

Steel Dynamics, Inc. – Iron Dynamics Division consists of the following emission units and pollution control devices:

Rotary Hearth Furnace (RHF)

(a) One (1) rotary hearth furnace (RHF) constructed in 1998 and modified in 2001 with an addition of ten (10) natural gas-fired low-NOx burners, having a total furnace nominal heat input of 376 MMBtu per hour. The RHF processes coal and iron ore to produce a nominal throughput of ninety-six (96) tons of direct reduced iron per hour. Emissions are controlled by an afterburner for CO and VOC, lime injection in the gas stream for SO_2, selective non-catalytic reduction for NOx, and a baghouse for PM/PM_{10} and lead. Emissions exhaust through Stack 40. The RHF is equipped with a pressure relief valve for safety purposes.

Rotary Hearth Furnace Additional Emission Points

(a) RHF Fugitives

One (1) 40,000 dscfm air flow fugitive emissions baghouse, added in 2003, to control fugitive emissions from the Rotary Hearth Furnace (RHF), exhausting through Stack 77.

(b) RHF Briquetters

Two (2) enclosed RHF green briquetters, constructed in 2003, replacing the existing pelletizing equipment, with a nominal throughput of 160 tons per hour, exhausting through the RHF fugitive emissions baghouse, exhausting through Stack 77.

Submerged Arc Furnace (SAF)

(a) Submerged Arc Furnace (SAF)

(1) One (1) submerged arc furnace (SAF), constructed in 1998, that processes direct reduced iron (DRI), coke and lime to produce a nominal output of 55 tons of liquid hot metal (pig iron) per hour. Emissions are exhausted through a hole in the stationary lid, controlled by a wet venturi scrubber with a nominal air flow of 300,000 dscfm and an afterburner exhausting through Stack 58. The SAF is equipped with a pressure relief valve for safety purposes.

(b) RHF Discharge Chute

One (1) 60,000 dscfm airflow RHF Discharge Chute baghouse, added in 2003, to control fugitive emissions from the pan conveyor used to transport material from the Rotary Hearth Furnace to the Submerged Arc Furnace exhausting to Stack 58.

(c) Ladle Preheaters

Two (2) ladle preheaters each with a nominal heat input of 9 MMBtu per hour;

(d) Briquetters

Two (2) enclosed SAF hot briquetters, constructed in 2002, with a nominal throughput of 55 tons per hour, exhausting through Stack 58.

(e) Conveyors

(1) One (1) Hot Pan Conveyor, identified as Hot Pan Conveyor 1, constructed in 2000, with a nominal throughput rate of 55 tons per hour, and

(2) One (1) Hot Pan Conveyor, identified as Hot Pan Conveyor 2, constructed in 2003, with a nominal throughput rate of 55 tons per hour.

Coal and Iron Ore Unloading

(a) One (1) receiving shed, constructed in 1998, with a particulate matter emissions exhaust system controlled by a baghouse exhausting through Stacks 67and 68.

(b) One (1) rotary railcar dumper, constructed in 1998, with a nominal throughput of 2,500 tons per hour, with the particulate matter emissions captured by a side hood controlled by the shed baghouse exhausting through Stacks 67and 68.

Coal Processing

(a) One (1) totally enclosed coal crusher identified as a double cone classifier (grinder),constructed in 1998, with the air from the coal collectors that is not recirculated, exhausts through the coal dryer Stack 75.

(b) One (1) coal dryer, constructed in 1998, with a nominal heat capacity of 25 MMBtu per hour and processes a nominal 60 tons of coal per hour, with emissions exhausting through Baghouse B-75, then Stack 75.

Ore Dryer

One (1) Ore Dryer, constructed in 1998, with a nominal heat capacity of 27MMBtu per hour and processes a nominal 115 tons of ore per hour, with emissions exhausting through Baghouse B-76, then Stack 76.

Ore Processing

One (1) Ore Preparation Process, constructed in 1998, consisting of a roll screener, ore press (grinder) and magnetic separators with particulate matter emissions controlled by a baghouse, exhausting to Stack 74.

Material Storage and Handling

(a) Silos and Bins

Fourteen (14) material storage silos and bins equipped with air bin vent filters to vent the displaced air for particulate matter emissions control, consisting of the following:

(1) One (1) storage bin, constructed in 1998, with a nominal capacity of 8,000 cubic feet, exhausting through Stack 44.

(2) One (1) EAF dust silo, constructed in 1998, with a nominal capacity of 7,970 cubic feet, exhausting through Stack 45.

(3) One (1) carbon injection silo, constructed in 1998, with a nominal capacity of 2,300 cubic feet, exhausting through Stack 46.

(4) Four (4) coal silos, constructed in 1998, with nominal capacities of 8,909, 23,420, 19,712 and 24,289 cubic feet respectively, exhausting through Stacks 47 through 50.

(5) One (1) SAF bin, constructed in 1998, with a nominal capacity of 7,970 cubic feet, exhausting through Stack 86.

(6) One (1) zinc silo, constructed in 2003, with a nominal throughput rate of 3.0 tons of recycled zinc per hour, controlled by one (1) filter, exhausting through Stack 80.

(7) One (1) ash silo, constructed in 2003, with a nominal throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, exhausting into the building.

(8) Four (4) storage bins, constructed in 1998.

(b) Material Recycling and Unloading Systems

(1) One (1) SAF dust recycling system, constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, exhausting into the building.

(2) One (1) zinc silo, constructed in 2003 with a nominal throughput rate of 3.0 tons of recycled zinc per hour, controlled by one (1) filter, exhausting through Stack 80.

(3) One (1) ash silo, constructed in 2003 with a nominal throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, exhausting into the building.

(4) One (1) EAF dust unloading process, constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, exhausting into the building.

(5) One (1) vacuum system, constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, exhausting into the building.

(6) One (1) zinc silo unloading process, constructed in 2003 with a nominal throughput rate of 3.0 tons of zinc per hour, controlled by one (1) filter, exhausting into the building.

(7) One (1) ash silo unloading process, constructed in 2003 with a nominal throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, exhausting into the building.

Outdoor Storage and Handling

(a) One (1) coal and ore Stacker conveyer with a nominal capacity of 2,500 tons per hour. Fugitive emissions controlled as needed by water sprays, to control fugitive dust at transfer and discharge points.

(b) One (1) storage pile of coal with a nominal storage capacity of 20,000 tons and nominal pile acreage of 1.0 acre and a nominal throughput of 300,000 tons per year.

(c) One (1) storage pile of iron ore with a nominal storage capacity of 120,000 tons and nominal pile acreage of 5.7 acres and a nominal throughput of 900,000 tons per year.

(d) One (1) storage pile of fluxstone (lime dolomite) with a storage capacity of 30,000 tons and a pile acreage of 0.5 acres and a nominal throughput of 80, 000 tons per year.

(e) Above ground coal and iron ore reclaim hoppers used by the front end loaders to transport material from the storage piles to the conveying system.

(f) Closed conveyers with a nominal capacity of 1,100 tons per hour to move coal and ore to storage silos or coal crusher.

(g) One (1) RHF millings processing area, constructed in 2007 and permitted in 2013, with a nominal throughput of 100 tons per hour, and consisting of the following:

(1) One (1) storage pile, identified as RHF Millings Pile, with a nominal pile area of 41,250 square feet.

(2) One (1) surge bin, with a nominal throughput of 100 tons per hour.

(3) One (1) screen, with a nominal throughput of 100 tons per hour.

(4) One (1) storage pile, identified as RHF Midsize, Oversized, and Temporary Pile, with a nominal pile area of 14,000 square feet.

(5) One (1) stacker, with a nominal throughput of 100 tons per hour.

(6) One (1) storage pile, identified as RHF Byproduct / Blending Pile, with a nominal pile area of 95,850 square feet.

(7) Unpaved roads.

SAF Building Dust Control System

One (1) SAF Building Dust Control System; identified as DC-90; constructed in 2006; with emissions controlled by a 300,000 scfm baghouse; exhausting to Stack 90.

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

Steel Dynamics, Inc. – Iron Dynamics Division also includes the following insignificant activities, as follows:

1. Specifically regulated insignificant activities, as defined in 326 IAC 2-7-1(21):

   (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment and welding equipment. [326 IAC 6-3-2]

   (b) Bentonite railcar unloading. [326 IAC 6-3-2]

2. Other Insignificant activities:

   (a) Space heaters, process heaters, or boilers using the following fuels:
      (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
      (ii) 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.

   (b) Combustion source flame safety purging on startup.

   (c) The following VOC and HAP storage containers:
      (i) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
      (ii) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

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

   (e) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.

   (f) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

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

   (h) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

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

   (j) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.

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

(l) Covered conveyors for limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

(m) Underground conveyors.

(n) Coal bunker and coal scale exhausts and associated dust collector vents.

(o) 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.

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

(q) 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.

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

(s) Purge double block and bleed valves.

(t) Filter or coalescer media changeout.

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

(v) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(w) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).

3. Other Activities less than significant level

(a) Diesel generators

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

Steel Dynamics, Inc. – Iron Dynamics Division 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)] [IC 13-15-3-6(a)]

(a) This permit, T033-12614-00076, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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.

B.4 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, and the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

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

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 or its equivalent, with each submittal requiring certification. One 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) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

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

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

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

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

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

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

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

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

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

(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 60/63 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-base emission limitation, except as otherwise provided in this condition.

(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 Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

(6) The Permittee promptly 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 promptly 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. Any emergencies that have been previously reported pursuant to paragraph (b)(5) of this condition and certified by an "responsible official" need only referenced by the date of the original 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, 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 T033-12614-00076 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 permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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

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

(a) Deviations from any permit requirements (for emergencies see Section B.11 - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

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

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

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(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.17 Permit Renewal [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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

B.18 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

B.19 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)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

(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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission 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.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]

(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.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-17-3-2] [IC13-30-3-1]

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

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

(b) As authorized by the Clean Air Act, IC 13-14-2-2, 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.23 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 permit revision that allows for 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

B.24 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.25 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.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Matter Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 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 forty percent (40%) 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.3 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. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 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.5 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.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the fugitive dust plan as in Attachment A.

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

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

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

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

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

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

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

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ no 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 no later than five (5) days prior to the end of the initial forty-five (45) day period. The notification submitted by the Permittee does not require certification by the “responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Requirements [326 IAC 2-1.1-11]

C.10 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. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.11 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 no later than ninety (90) days after 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 no later than ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

C.12 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.13 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.14 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 prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on August 16, 1998.

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

C.15 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.16 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.17 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.9 - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, no later than thirty (30) days after receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.

(b) A retest to demonstrate compliance shall be performed no later than one hundred twenty (120) days after submission to IDEM, OAQ 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 not 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 2-7-6] [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11][326 IAC 2-2]

C.18 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 no later than 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

(a) Records of all required monitoring data 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 no later than ninety (90) days after 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.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) 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) 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

(2) 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.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted no later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted no later than thirty (30) days after the end of the reporting period. All reports that require certification shall be signed 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 months, quarters or 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 (d) in Section C.19- 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.19 - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C.19 - 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.19 - 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 (d)(1) and (2) in Section C.19 - General Record Keeping Requirements.

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

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

Reports required in this part shall be submitted to:

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

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C.19 - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.21 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.

Alternative Operating Scenario

C.22 Alternative Operating Scenario

The Permittee may use propane gas as an alternative fuel in place of natural gas during emergency situations.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Rotary Hearth Furnace Operations

Rotary Hearth Furnace (RHF)

(a) One (1) rotary hearth furnace (RHF) constructed in 1998 and modified in 2001 with an addition of ten (10) natural gas-fired low-NOx burners, having a total furnace nominal heat input of 376 MMBtu per hour. The RHF processes coal and iron ore to produce a nominal throughput of ninety-six (96) tons of direct reduced iron per hour. Emissions are controlled by an afterburner for CO and VOC, lime injection in the gas stream for SO_2, selective non-catalytic reduction for NOx, and a baghouse for PM/PM_{10} and lead. Emissions exhaust through Stack 40. The RHF is equipped with a pressure relief valve for safety purposes.

(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 Particulate Matter (PM/PM_{10}) - Best Available Control Technology (BACT)[326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), the PM/PM_{10} (where PM_{10} includes both filterable and condensable components) emissions from the rotary hearth furnace process baghouse shall not exceed 0.0052 grains per dscf through Stack 40. The total emissions shall not exceed 13.4 pounds per hour.

D.1.2 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to SSM 033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), the visible emissions discharged into the atmosphere from the rotary hearth furnace process baghouse Stack 40 shall not exceed three percent (3%) opacity, as determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

(b) Pursuant to CP-033-8091-00043, issued June 25, 1997 and 326 IAC 2-2-3, the visible emissions from vents, Stacks and building roof monitors, unless otherwise specified, shall not exceed three (3%) percent opacity. Visible emissions shall be determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

D.1.3 Sulfur Dioxide (SO_2) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), the sulfur dioxide emissions from the rotary hearth furnace process baghouse Stack 40 shall be controlled by lime injection, wet scrubber and/or use of EAF dust as supplemental feedstock. The SO_2 emissions shall be limited as follows:

(a) When using lime injection or wet scrubber as control, SO_2 emissions shall not exceed 0.75 pounds per ton of material charged into the furnace. The SO_2 emissions shall not exceed 78 pounds per hour.

(b) When using at least 2 tons per hour of EAF dust as supplemental feedstock as control, SO_2 emissions shall not exceed 0.4 pounds per ton of material charged into the furnace. The SO_2 emissions shall not exceed 39.0 pounds per hour.

D.1.4 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), except during periods of start up or shut down, the volatile organic compound emissions from the rotary hearth furnace process baghouse Stack 40 shall be controlled by an afterburner and operated at an average temperature of one thousand eight hundred sixty three (1863)^{o}F and emissions shall not exceed 0.06 pounds per ton of material charged into the furnace. The total emissions shall not exceed 6.23 pounds per hour.

D.1.5 VOC General Reduction Requirements (BACT): New Facilities [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Rotary Hearth Furnace Best Available Control Technology (BACT) requirements for 326 IAC 2-2-3 are equivalent to BACT requirements for this rule.

D.1.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), except during periods of start up or shut down, the carbon monoxide emissions from the rotary hearth furnace process bag house Stack 40 shall be controlled by afterburner and operated at an average temperature of one thousand eight hundred sixty three (1863)^{o}F and emissions shall not exceed 100 ppm and 114,519 ug/m3. The total emissions shall not exceed 146.8 pounds per hour.

D.1.7 Nitrogen Oxides (NOx) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), the nitrogen oxide(s) emissions from the rotary hearth furnace process baghouse Stack 40 shall be controlled by the use of low-NOx natural gas-fired burners and a selective non-catalytic reduction unit (SNCR). Except during periods of start up or shut down, the total emissions shall not exceed 1.25 pounds per ton of material charged into the furnace and 120 pounds per hour.

The SNCR system shall be operated in a manner recommended by the manufacturer and good work practices to minimize the NOx emissions and ammonia slip.

D.1.8 Lead Emissions - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3 (BACT), the lead emissions from the rotary hearth furnace process baghouse Stack 40 shall not exceed 0.00058 pounds per ton of material charged into the furnace and 0.0557 pounds per hour.

D.1.9 Startup and Shutdown Emissions - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to SSM 033-15955-00076, issued on December 18, 2002 and 326 IAC 2-2-3, the startup is defined as the duration from the firing of the burners in the RHF to the time when the RHF exhaust gas temperature is within the optimum ranges of the operation control devices for NOx, CO and VOC emissions.

(b) Shutdown is defined as the duration from first curtailment of fuel input to the RHF burners with the intent of full shutdown to the final complete stop of fuel input and complete cessation of combustion in the RHF.

(c) The RHF shall be operated in a manner consistent with good air pollution control and work practices to minimize emissions during startup and shutdown by operating in accordance with written procedures developed and maintained by the Permittee, which shall include at a minimum the following measures:

(1) Review of operating parameters of the unit startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions;

(2) Operate emission control equipment as soon as the RHF exhaust gas temperature reaches the lower value of the optimum temperature range for the control equipment. This operation shall continue until the time the RHF shutdown sequence is initiated with the intention of shutdown of the unit; and

(3) Implementation of the inspection and repair procedures for the RHF and the emissions control equipment prior to attempting startup to ensure proper operation.

D.1.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the RHF and the following control devices: the rotary hearth furnace process baghouse, RHF selective non-catalytic reduction system, and afterburner.

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

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Not later than twelve (12) months from issuance of this Part 70 permit (T033-12614-00076), issued on October 4, 2006, and in order to demonstrate compliance with Condition D.1.1 - Particulate Matter (PM/PM_{10}) - Best Available Control Technology and D.1.4 - Volatile Organic Compounds (VOC) - Best Available Control Technology, the Permittee shall perform PM/PM_{10}, lead, and VOC testing on the RHF, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years. PM_{10} includes filterable and condensable components.

All testing shall be conducted in accordance with Section C.9 - Performance Testing.

D.1.12 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM 033-15955-00076, issued on December 18, 2002 and 326 IAC 2-2-3 (Control Technology Review: Requirements) and in order to comply with conditions D.1.1- Particulate Matter (PM/PM_{10}) - Best Available Control Technology and D.1.8 - Lead Emissions - Best Available Control Technology, the baghouse for PM/PM_{10} control shall be in operation and control emissions from the rotary hearth furnace process baghouse Stack 40 at all times the rotary hearth furnace is in operation.

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

D.1.13 Continuous Emission Rate Monitoring [326 IAC 3-5]

When the Submerged Arc Furnaces off gas is routed to the Rotary Hearth Furnace and at all times when the Rotary Hearth Furnace is in operation, the Permittee shall comply with the following:

(a) Pursuant to 326 IAC 3-5-1(d), the Permittee shall calibrate, certify, operate, and maintain a continuous emissions monitoring systems (CEMS) for measuring SO_2, CO, and NOx emissions rates in pounds per hour from the rotary hearth furnace process baghouse Stack 40, in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.

(b) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.

(c) In the event that a breakdown of the SO_2, CO, and/or NOx continuous emission monitoring system (CEMS) occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever the SO_2 CEMS is malfunctioning or will be down for calibration, maintenance, or repairs for a period of six (6) hours, the Permittee shall monitor the lime injection rate into the gas stream.

(e) Whenever the NOx CEMS is malfunctioning or will be down for calibration, maintenance, or repairs for a period of six (6) hours, the Permittee shall monitor the ammonia injection rate into the Selective Non-Catalyst Reduction Unit.

(f) When ever the CO continuous emissions monitoring system is malfunctioning or down for maintenance or repair for a period of six (6) hours, the Permittee shall monitor the

thermal oxidizer temperature, so it is maintained at the temperature achieved during the last compliant stack test.

(g) A calibrated backup SO_2, NOx and/or CEMS shall be brought online no later than seventy-two (72) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS is back in operation.

(h) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 2-2.

D.1.14 Opacity Monitoring on the Rotary Hearth Furnace

The Permittee shall demonstrate compliance with Condition D.1.2 by using any of the following methods:

(a) Opacity Readings by certified opacity observer:

(1) Opacity from the rotary hearth furnace process baghouse Stack 40 shall be performed at least once per day during normal daylight operations. A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.

(2) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.

(3) 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.

(4) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(5) Conditions (1) through (3) above are not applicable should a continuous opacity monitor be installed which meets 40 CFR 60, Appendix B, Performance Specification or a bag leak detector is installed as provided in this condition.

(b) Continuous Opacity Monitoring System (COMs)

(1) Calibrate, certify, operate and maintain a continuous opacity monitoring system in accordance with 40 CFR 60 Appendix B, Performance Specification for measuring opacity from the rotary hearth furnace process baghouse Stack 40, in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.

(2) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(3) Whenever a COM is malfunctioning or is down for maintenance, or repairs for a period of twenty-four (24) hours or more**,** and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(C) Method 9 readings may be discontinued once a COMS is online.

(D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(4) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60.

(c) Bag Leak Detection System

(1) Operation of a bag leak detection system. If bag leak detection system is installed, then condition D.1.18 shall not be applicable.

(2) In the event the bag leak detection system is inoperable, the Permittee shall substitute Condition D.1.17(a) and D.1.18 to show compliance, until the bag leak detection system is operable.

(3) The baghouse leak detection system shall meet the following criteria:

(A) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.0052 grains per dry standard cubic foot or less.

(B) The bag leak detection system sensor must provide output of relative particulate matter loading.

(C) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test.

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the US Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the devices, and establishing the alarm set pints and the alarm delay time.

(F) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 326 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.

(G) The bag leak detection system sensors must be inspected monthly and build-up must be removed from probe and insulator.

(H) The Permittee shall perform monthly QA checks including response tests and electronics drift checks and opacity readings to confirm the operation of the baghouse is in order.

(I) The bag detector must be installed on each compartment or downstream of the baghouse.

(J) In the event a bag leak detection system alarm is triggered and 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 or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(K) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.15 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the rotary hearth furnace, at least once per day when the RHF is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 and 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.16 – 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.16 – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C.13 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

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

D.1.16 Record Keeping Requirements

(a) To document compliance with Condition D.1.13 and D.1.14(b) (if applicable) the Permittee shall maintain records as required under 326 IAC 3-5-6 at the source in a manner such that they may be inspected by IDEM, OAQ or U.S. EPA, as requested.

(b) To document compliance with Condition D.1.13(c) through (g), the Permittee shall maintain records of CEMS down time, the lime injection rate, the ammonia injection rate and/or thermal oxidizer temperature during the CEMS down time.

(c) To document compliance with Condition D.1.14(a) (if applicable), the Permittee shall maintain records of the once per day opacity readings of the rotary hearth furnace process baghouse Stack 40. The Permittee shall include in its daily record when an opacity reading is not taken and the reason for the lack of an opacity reading (e.g. the process did not operate that day).

(d) To document compliance with Condition D.1.15 (if applicable), the Permittee shall maintain records of the once per day pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(e) To document compliance with condition D1.14(c)(3) (if applicable), the Permittee shall maintain records of opacity readings of the dates and times of all bag leak detection

system alarms, the cause of each alarm, and an explanation of all corrective actions taken and records of preventive maintenance required by D.1.14(c)(3)(G) and (H).

(f) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.

D.1.16 Reporting Requirements

The Permittee shall submit on a quarterly basis records of excess opacity, SO_2, CO and NOx emissions (defined in 326 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system and the opacity readings taken (if applicable). These reports shall be submitted no later than thirty (30) days after the end of each calendar quarter and in accordance with Section C.20-General Reporting Requirements of this permit. The report submitted by the Permittee does require 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)]: Rotary Hearth Furnace Additional Emission Points

(a) RHF Fugitives

One (1) 40,000 dscfm air flow baghouse to control fugitive emissions from the Rotary Hearth Furnace (RHF), exhausting through Stack 77.

(b) RHF Briquetters

Two (2) enclosed RHF green briquetter, constructed in 2003, replacing the existing pelletizing equipment, with a nominal throughput of 160 tons per hour, exhausting through the one (1) 40,000 dscfm air flow baghouse, added in 2003, exhausting through Stack 77.

(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 Particulate Matter (PM/PM_{10}) - Best Available Control Technology (BACT)[326 IAC 2-2-3]

Pursuant to A-033-17732-00076, issued September 17, 2003 and 326 IAC 2-2-3 (BACT), the PM/PM_{10} (where PM_{10} includes both filterable and condensable components) emissions from the rotary hearth furnace fugitives' baghouse and briquetter baghouse shall not exceed a total air flow rate design of 100,000 dscfm and 0.0052 grains per dscf through Stack 77. The total emissions shall not exceed 4.46 pounds per hour.

D.2.2 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to A033-17732-00076, issued September 17, 2003 and 326 IAC 2-2-3 (BACT), the visible emissions discharged into the atmosphere from rotary hearth furnace fugitives baghouse and briquetter baghouse Stack 77 shall not exceed three percent (3%) opacity, as determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

D.2.3 Lead Emissions - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to A-033-17732-00076, issued September 17, 2003 and 326 IAC 2-2-3 (BACT), the lead emissions from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 shall not exceed 0.019 pounds per hour.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the RHF control devices: RHF fugitives baghouse and RHF briquetters baghouse.

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

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within thirty (30) months from the date of the latest compliance demonstration stack test and in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM/PM_{10} testing on the RHF fugitives baghouse and briquetter baghouse Stack 77, utilizing methods as approved by the Commissioner. This test shall be repeated at least once five (5) years from the date of the most recent valid compliance demonstration stack test. PM_{10} includes filterable and condensable components. Testing shall be conducted in accordance with Section C.9 - Performance Testing.

D.2.6 Particulate Matter (PM/PM_{10}) - Best Available Control Technology) [326 IAC 2-2-3]

Pursuant to SSM 033-15955-00076, issued on December 18, 2002, A-033-17732-00076, issued September 17, 2003 and 326 IAC 2-2-3 (Best Available Control Technology Review: Requirements) and in order to comply with condition D.2.1 and D.2.3, the baghouses for

PM/PM_{10} control shall be in operation and control emissions from the rotary hearth furnace fugitives and briquetters at all times the rotary hearth furnace and briquetters are in operation.

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

D.2.7 Opacity Monitoring on the Rotary Hearth Furnace

The Permittee shall demonstrate compliance with Condition D.2.2 by using any of the following methods:

(a) Opacity Readings by certified opacity observer:

(1) Opacity from the RHF fugitives and briquetter baghouse Stack 77 shall be performed at least once per day during normal daylight operations. A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.

(2) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.

(3) 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.

(4) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(5) Conditions (1) through (3) above are not applicable should a continuous opacity monitor be installed which meets 40 CFR 60, Appendix B, Performance Specification or a bag leak detector is installed as provided in this condition.

(b) Continuous Opacity Monitoring System (COMs)

(1) Calibrate, certify, operate and maintain a continuous opacity monitoring system in accordance with 40 CFR 60 Appendix B, Performance Specification for measuring opacity from the RHF fugitives and briquetters baghouse Stack 77, in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.

(2) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(3) Whenever a COM is malfunctioning or is down for maintenance, or repairs for a period of twenty-four (24) hours or more**,** and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(C) Method 9 readings may be discontinued once a COMS is online.

(D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(4) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60.

(c) Bag Leak Detection System

(1) Operation of a bag leak detection system. If bag leak detection system is installed, then condition D.2.8 shall not be applicable.

(2) In the event the bag leak detection system is inoperable, the Permittee shall substitute Condition D.2.7(a) and D.2.8 to show compliance, until the bag leak detection system is operable.

(3) The baghouse leak detection system shall meet the following criteria:

(A) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.0052 grains per dry standard cubic foot or less.

(B) The bag leak detection system sensor must provide output of relative particulate matter loading.

(C) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test.

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the US Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the devices, and establishing the alarm set pints and the alarm delay time.

(F) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 326 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.

(G) In the event a bag leak detection system alarm is triggered and 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 or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(H) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.8 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the rotary hearth furnace fugitives and briquetters, at least once per day when the RHF is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 and 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.16- 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.16- Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C.13 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

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

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.7(b) (if applicable) the Permittee shall maintain records as required under 326 IAC 3-5-6 at the source in a manner such that they may be inspected by IDEM, OAQ or U.S. EPA as requested.

(b) To document compliance with Condition D.2.7(a) (if applicable), the Permittee shall maintain records of once per day opacity readings of the RHF fugitives and RHF briquetter baghouses Stack 77 exhausts. The Permittee shall include in its daily record when an opacity reading is not taken and the reason for the lack of an opacity reading (e.g. the process did not operate that day).

(c) To document compliance with Condition D.2.8 (if applicable), the Permittee shall maintain records of the once per day pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) To document compliance with condition D.2.7(c)(3) (if applicable), the Permittee shall maintain records of opacity readings of the dates and times of all bag leak detection system alarms and the cause of each alarm.

(e) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.

D.2.10 Reporting Requirements

The Permittee shall submit on a quarterly basis records of excess opacity, emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system and the opacity readings taken (if applicable). These reports shall be submitted no later than thirty (30) days after the end of each calendar quarter and in accordance with Section C.20- General Reporting Requirements of this permit. The report submitted by the Permittee does require 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)]:

Submerged Arc Furnace (SAF)

(a) Submerged Arc Furnace (SAF)

(1) One (1) submerged arc furnace (SAF), constructed in 1998, that processes direct reduced iron (DRI), coke and lime to produce a nominal output of 55 tons of liquid hot metal (pig iron) per hour. Emissions are exhausted through a hole in the stationary lid, controlled by a wet venturi scrubber with a nominal air flow of 300,000 dscfm and an afterburner exhausting through Stack 58. The SAF is equipped with a pressure relief valve for safety purposes.

(b) RHF Discharge Chute

One (1) 60,000 dscfm airflow RHF Discharge Chute baghouse, added in 2003, to control fugitive emissions from the pan conveyor used to transport material from the Rotary Hearth Furnace to the Submerged Arc Furnace exhausting to Stack 58.

(c) Ladle Preheaters

Two (2) ladle preheaters each with a nominal heat input of 9 MMBtu per hour;

(d) Briquetters

Two (2) enclosed SAF hot briquetters, constructed in 2002, with a nominal throughput of 55 tons per hour, exhausting through Stack 58.

(e) Conveyors

(1) One (1) Hot Pan Conveyor, identified as Hot Pan Conveyor 1, constructed in 2000, with nominal throughput rate of 55 tons per hour, and

(2) One (1) Hot Pan Conveyor, identified as Hot Pan Conveyor 2, constructed in 2003, with a nominal throughput rate of 55 tons per hour.

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

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

D.3.1 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to SSM-033-15955-00076, issued December 18, 2002 and 326 IAC 2-2-3, the PM/PM_{10} emissions from the submerged arc furnace (SAF) Stack 58 shall not exceed 0.0032 grains per dry standard cubic feet (dscf) and 8.23 pounds of PM/PM_{10} per hour.

(b) Pursuant to CP-033-9187-00043, issued March 24, 1998 and 326 IAC 2-2-3, the PM/PM_{10} emissions from the DRI bins, slag pots and tapping associated with the SAF shall be captured by canopy hoods and exhausted to the SAF baghouse.

D.3.2 Particulate (PM/PM_{10}) (Particulate Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Pursuant to exemption 033-17200-00076, issued August 6, 2003 and 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from each hot pan conveyor shall not exceed 45.5 pounds per hour when operating at a nominal process weight rate of 55 tons per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation and extrapolation of the data for process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.3 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to CP-033-9187-00043, issued on March 24, 1998 and 326 IAC 2-2-3, the visible emissions from the submerged arc furnace (SAF) Stack 58 shall not exceed three percent (3%) opacity determined by a six (6) minute average.

(b) Pursuant to CP-033-9187-00043, issued on March 24, 1998 and 326 IAC 2-2-3, the visible emissions from any building opening, shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

D.3.4 Sulfur Dioxide (SO_2) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued on March 24, 1998, PSD SSM No. 033-26976-00076, and 326 IAC 2-2-3, the sulfur dioxide emissions from the submerged arc furnace Stack 58 shall not exceed 0.068 pounds per ton and 3.76 pounds of SO_2 per hour.

D.3.5 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3] [326 IAC 8-1-6]

Pursuant to CP-033-9187-00043, issued on March 24, 1998, PSD SSM No. 033-26976-00076, and 326 IAC 2-2-3, the volatile organic compound emissions from the submerged arc furnace Stack 58 shall not exceed 0.106 pounds per ton and 5.83 pounds of VOC per hour.

D.3.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued on March 24, 1998, PSD SSM No. 033-26976-00076, and 326 IAC 2-2-3, the carbon monoxide emissions from the submerged arc furnace Stack 58 shall not exceed 2.85 pounds per ton and 156.75 pounds of CO per hour.

D.3.7 Carbon Monoxide (CO) [326 IAC 9-1]

Pursuant to CP033-9187-00043, issued March 24, 1998, PSD SSM No. 033-26976-00076, and 326 IAC 9-1, the Permittee shall not allow the discharge of CO from the Submerged Arc Furnace unless the waste gas stream is controlled by a direct-flame afterburner.

D.3.8 Nitrogen Oxides (NOx) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued on March 24, 1998 and 326 IAC 2-2-3, the nitrogen oxide(s) emissions from the submerged arc furnace Stack 58 shall not exceed 0.117 pounds per ton and 6.46 pounds of NOx per hour.

D.3.9 Applicability [326 IAC 2-1.1-3]

Pursuant to Exemption 033-17200-00076, issued August 6, 2003 and 326 IAC 2-1.1-3, the SAF briquetters and conveyors provided in the description information above are classified as exempt from air pollution permit requirements.

D.3.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the RHF discharge chute baghouse, Submerged Arc Furnace, ladle preheaters, SAF hot briquetters, wet venturi scrubber, afterburner, and the associated baghouses.

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

D.3.11 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.3.1, D.3.4, D.3.5, D.3.6, and D.3.8 the Permittee shall:

Within twelve (12) months after issuance of Significant Permit Modification No. 033-27112-00076, the Permittee shall perform PM/PM_{10}, SO_2, VOC, NO_X, and CO testing on the SAF Stack 58, utilizing testing methods approved by the Commissioner. The tests shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C.9 - Performance Testing.

D.3.12 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3] [326 IAC 2-7-6(6)]

(a) Pursuant to CP-033-9187-00043, issued on March 24, 1998, and in order to comply with D.3.1(a), the wet venturi scrubber for particulate control shall be in operation and control emissions from the Submerged Arc Furnace at all times the Submerged Arc Furnace is in operation.

(b) Pursuant to 326 IAC 2-2-3, Best Available Control Technology, and in order to comply with D.3.1(a), the RHF discharge chute baghouse for particulate control shall be in operation and control emissions from the RHF discharge chute at all times the RHF is in operation.

(c) Pursuant to SSM 033-15955-00043, issued on December 18, 2002, and in order to comply with D.3.1(b), the desulfurization baghouse for particulate control shall be in operation and control emissions from the DRI bins, slag pots and tapping associated with the SAF at all times the DRI bins, slag pots and tapping 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 or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.13 Sulfur Dioxide (SO_2) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to PSD SSM No. 033-26976-00076 and in order to comply with D.3.4, the wet venturi scrubber for sulfur dioxide (SO_2) control shall be in operation and control SO_2 emissions from the Submerged Arc Furnace at all times the Submerged Arc Furnace is in operation.

D.3.14 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3] [326 IAC 8-1-6]

Pursuant to PSD SSM No. 033-26976-00076 and in order to comply with D.3.5, the Permittee shall either:

(a) have an afterburner in operation and control for volatile organic compound (VOC) emissions from the Submerged Arc Furnace at all times the Submerged Arc Furnace is in operation, or

(b) redirect the off gas from the Submerged Arc Furnace, after it goes through the wet scrubber, to the Rotary Hearth Furnace with an afterburner for control of volatile organic compound (VOC) emissions.

D.3.15 Carbon Monoxide (CO) Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued on March 24, 1998, PSD SSM No. 033-26976-00076, and in order to comply with D.3.6 and D.3.7, the Permittee shall either:

(a) have an afterburner in operation at all times the Submerged Arc Furnace is in operation, or

(b) redirect the off gas from the Submerged Arc Furnace, after it goes through the wet scrubber, to the Rotary Hearth Furnace with an afterburner for control of carbon monoxide.

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

D.3.16 Continuous Emissions Rate Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5-1(d) and CP-033-9187-00043, issued March 24, 1998, the Permittee shall:

(a) Have a certified visible emission observer observe opacity of the visible emissions from the SAF Stack 58 at least once per day when the SAF is operating. These observations shall be taken accordance with 40 CFR 60, Appendix A, Method 9 for at least three six minute averages. Records will be maintained of the visible emission observations;

and

(b) Install, calibrate, operate and maintain continuous monitoring systems for measuring and recording:

(A) The pressure loss through the venturi constriction of the SAF scrubber.

(B) The water supply pressure to the SAF scrubber. The monitoring device's pressure sensor or pressure tap must be located close to the water discharge point. The OAQ, Compliance Data Section must be consulted for approval in advance of selecting alternative locations for the pressure sensor or tap.

All scrubber monitoring devices shall use the continuous electronic recording to monitor the scrubber performance.

D.3.17 Afterburner Temperature

When the off gas from the Submerged Arc Furnace is being routed to the afterburner, a continuous monitoring system shall be calibrated, maintained and operated on the afterburner for measuring operating temperature. The output of this system shall be recorded as a one (1) hour average. The Permittee shall take appropriate response steps in accordance with Section C.16 – Response to Excursions or Exceedances whenever the one (1) hour average temperature of the afterburner is below 1128 ^{o}F. A one (1) hour average temperature that is below 1128 ^{o}F is not a deviation from this permit. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.18 Parametric Monitoring

(a) The Permittee shall record the pressure drop and flow rate of the scrubber used in conjunction with the submerged arc furnace at least once per day when the SAF is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 30 to 60 inches of water or a range established during the latest stack test and the flow rate of the scrubber is below the minimum of 40 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.16 - Response to Excursions or Exceedances. A pressure drop or flow rate 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.16 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall demonstrate compliance with Condition D.3.3 by either:

(1) The operation of a bag leak detection system ("BLDS") on the baghouse used in conjunction with the DRI bins, slag pots and tapping associated with the SAF when the DRI bins, slag pots and tapping associated with the SAF are in operation and the baghouse used in conjunction with the RHF discharge chute when the RHF is in operation. The BLDS shall meet the following criteria

(A) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.0032 grains per dry standard cubic foot or less.

(B) The bag leak detections system sensor must provide output of relative particulate matter loading.

(C) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test.

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the US Environmental Protection Agency or in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the devices, and establishing the alarm set pints and the alarm delay time.

(F) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good condition.

(G) The bag leak detection system sensors shall be inspected in accordance with the device manufacturer recommendations.

(H) The Permittee shall perform QA checks as recommended by the device manufacturer.

(I) The bag detector must be installed on each compartment or downstream of the baghouse.

(J) In the event a bag leak detection system alarm is triggered and if operation will continue for ten (10) days or more after the failure is observed before the unit will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable monitoring parameters with respect to normal and the results of any response actions taken up to the time of notification.

(K) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

or

(2) Opacity Readings by certified opacity observer:

(A) Opacity from the baghouse used in conjunction with the DRI bins, slag pots and tapping associated with the SAF and the baghouse used in conjunction with the RHF discharge chute shall be performed at least once per day during normal daylight operations. A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.

(B) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.

(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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C.16 – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure and flow rate shall comply with Section C.13- Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every twelve (12) months.

D.3.19 Scrubber Failure Detection

In the event, a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B.11 - Emergency Provisions).

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

D.3.20 Record Keeping Requirements

(a) To document compliance with Condition D.3.16(a), the Permittee shall maintain the records of the observed opacity readings of the SAF Stack 58 at least once per day. The Permittee shall include in its daily record when an opacity reading is not taken and the reason for the lack of an opacity reading (e.g. the process did not operate that day).

(b) To document compliance with D.3.16(b), the Permittee shall maintain records of the SAF continuous electronic recording of the pressure differential through the venturi constriction and water supply rate of the SAF scrubber. The Permittee shall include in its continuous record when a pressure differential is not taken and the reason for the lack of a recording (e.g. the process was not in operation).

(c) To document compliance with Condition D.3.17, the Permittee shall maintain records of the afterburner temperature on a continuous basis. The Permittee shall include in its continuous record when a temperature is not taken and the reason for the lack of a temperature recording (e.g. the process was not in operation).

(d) To document compliance with Condition D.3.18(a), the Permittee shall maintain records of the pressure drop and flow rate of the SAF scrubber, at least once per day. The Permittee shall include in its daily record when a pressure drop reading and flow rate is

not taken and the reason for the lack of a pressure drop reading and flow rate (e.g. the process did not operate that day).

(e) To document compliance with Condition D.3.18(b)(1), (if applicable) the Permittee shall maintain records of the dates and times of all bag leak detection system alarms and the cause of each alarm.

(f) To document compliance with Condition D.3.18(b)(2), (if applicable), the Permittee shall maintain records of the once per day opacity readings of the baghouse used in conjunction with the DRI bins, slag pots and tapping associated with the SAF and the baghouse used in conjunction with the RHF discharge chute. The Permittee shall include in its daily record when an opacity reading is not taken and the reason for the lack of an opacity reading (e.g. the process did not operate that day).

(g) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.

D.3.21 Reporting Requirements

The Permittee shall submit on a quarterly basis records of excess opacity readings (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7). These reports shall be submitted no later than thirty (30) calendar days after the end of each calendar quarter and in accordance with Section C.20-General Reporting Requirements. The report submitted by the Permittee does require 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)]: Coal and Iron Ore Processing

Coal and Iron Ore Unloading

(a) One (1) receiving shed, constructed in 1998, with a particulate matter emissions exhaust system controlled by a baghouse exhausting through Stacks 67 and 68.

(b) One (1) rotary railcar dumper, constructed in 1998, with a nominal throughput of 2,500 tons per hour, with the particulate matter emissions captured by a side hood controlled by the shed baghouse exhausting through Stacks 67 and 68.

(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 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued March 24, 1998, 326 IAC 2-2-3, the coal and iron ore receiving shall be conducted in a shed. Pressure in the shed shall be maintained at a level to ensure the particulate material does not escape through the doors. The drop point and shed shall each have capture systems for particulate matter which are exhausted to one (1) baghouse for control. Particulate emissions shall not exceed 0.5 pounds per hour from Stacks 67and 68.

D.4.2 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued March 24, 1998 and 326 IAC 2-2-3, the visible emissions from the receiving shed building opening or rotary car dumper Stacks 67 and 68 shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9 Appendix A).

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the receiving shed and associated baghouse.

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

D.4.4 Particulate (PM/PM_{10}) Control

Pursuant to CP-033-9187-00043, issued March 24, 1998, the baghouse for particulate control shall be in operation and control emissions from the receiving shed and railcar dumper at all times the railcar dumper is in operation.

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

D.4.5 Visible Emission Notations

(a) Visible emission notations of the receiving shed and railcar dumper Stacks 67 and 68, exhaust 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 response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.4.6 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Railcar Unloading Shed Baghouse used in conjunction with the Railcar Unloading Shed and Rail Car Dumper, at least once per day when the Railcar Unloading Shed and Rail Car Dumper are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C.16 – 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.16 – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C.13 - 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.4.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.11 - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the receiving shed. 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.11 - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.4.8 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain records of the once per day visible emission notations of the shed and railcar dumper Stacks 67 and 68 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.4.6, the Permittee shall maintain records of the once per day pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements of this permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

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

Coal Processing

(a) One (1) totally enclosed coal crusher identified as a double cone classifier (grinder), constructed in 1998, with the air from the coal collectors that is not recirculated is exhausted through the coal dryer Stack 75.

(b) One (1) coal dryer, constructed in 1998, with a nominal heat capacity of 25 MMBtu per hour and processes a nominal 60 tons of coal per hour, with emissions exhausting through Baghouse (B-75) then Stack 75.

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

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

D.5.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

Pursuant to SSM033-12992-00076, issued May 15, 2002, the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Y.

D.5.2 NSPS Coal Preparation Plant [40 CFR 60, Subpart Y] [326 IAC 12-1]

(a) Pursuant to SSM033-12992-00076, 326 IAC 12-1 and 40 CFR 60, Subpart Y (Coal Preparation Plant), the particulate matter emissions from the thermal coal dryer 75 shall not exceed 0.031 grains per dscf through Stack 75.

(b) Pursuant to SSM033-12992-00076, 326 IAC 12-1 and 40 CFR 60, Subpart Y (Coal Preparation Plant), the visible emissions from the thermal coal dryer Stack 75 shall not exceed 20%.

D.5.3 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-19160-00076, issued April 13, 2005 and 326 IAC 2-2-3, the PM/PM_{10} (where PM_{10} includes both filterable and condensable components) emissions from the Coal Dryer baghouse B-75 shall not exceed a PM/PM_{10} emission rate of 0.01 grains per dscf through Stacks 75. The PM/PM_{10} shall not exceed 0.5 lb per hour from Coal Dryer Stack 75.

D.5.4 Particulate (PM/PM_{10}) (Particulate Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Pursuant to SSM033-12992 -00076, issued May 15, 2002 and 326 IAC 6-3-2, the particulate matter (PM) from the Coal Dryer shall be limited as follows:

Process	Process Weight (Lbs/hr)	PM Emission Limit (Lbs/hr)
Coal Dryer	120,000	46.3

This limit was calculated as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.5.5 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to SSM033-12992 -00076, issued on May 15, 2002 and 326 IAC 2-2-3, the visible emissions discharged into the atmosphere from the coal dryer Stack 75 shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A), pursuant to 326 IAC 5-1-4.

(b) Pursuant to SSM033-12992 -00076, issued on May 15, 2002 and 326 IAC 2-2-3, the visible emissions discharged into the atmosphere from the vents and openings in the buildings housing the coal dryer shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

D.5.6 Sulfur Dioxide (SO_2) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992 -00076, issued May 15, 2002 and 326 IAC 2-2-3, the sulfur dioxide emissions from the Coal Dryer shall not exceed 0.00059 pounds per MMBtu of heat input. The SO_2 emissions shall not exceed 0.015 pounds per hour from the Coal Dryer Stack 75.

D.5.7 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM 033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the volatile organic compound emissions from the Coal Dryer shall not exceed 0.0053 pounds per MMBtu of heat input. The VOC emissions shall not exceed 0.14 pounds per hour from the Coal Dryer Stack 75.

D.5.8 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992 -00076, issued May 15, 2002 and 326 IAC 2-2-3, the carbon monoxide emissions from the Coal Dryer shall not exceed 0.082 pounds per MMBtu of heat input. The CO emissions shall not exceed 2.1 pounds per hour from Coal Dryer Stack 75.

D.5.9 Nitrogen Oxides (NOx) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM 033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the nitrogen oxide(s) emissions from the Coal Dryer shall be controlled by the use of low-NOx natural gas-fired burners and shall not exceed 0.049 pounds per MMBtu of heat input. The NOx emissions shall not exceed 1.25 pounds per hour from the Coal Dryer Stack 75.

D.5.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 Preventive Maintenance Plan, of this permit, is required for the coal crusher, coal dryer and the associated baghouse.

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

D.5.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11] [40 CFR 60 Subpart Y]

Within five (5) years from February 19, 2004 and in order to demonstrate compliance with Condition D.5.1, D.5.2 and D.5.3, the Permittee shall perform PM/PM_{10} testing on the coal dryer baghouse Stack 75, utilizing testing methods as approved by the Commissioner in accordance with Section C.9- Performance Testing. These tests shall be repeated at least once every five (5) years. PM_{10} includes filterable and condensable components.

D.5.12 Particulate (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to CP033-8091-00043, issued on June 25, 1997, the baghouse for particulate control shall be in operation and control emissions from the coal crusher at all times the coal crusher is in operation.

(b) Pursuant to SSM 033-12992 -00076, issued May 15, 2002, the baghouse for particulate control shall be in operation and control emissions from the coal dryer at all times the coal dryer is in operation.

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

D.5.13 Visible Emission Notations

(a) Visible emission notations of the Coal Dryer Stack 75, exhaust 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 response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.5.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.11 - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the coal dryer and crusher. 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.11 - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.5.15 Monitoring of Operations [40 CFR 60.253 Subpart Y]

(a) The Permittee shall install, calibrate, maintain and continuously operate 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 ±3° Fahrenheit.

(b) The monitoring device under paragraph (a) shall be recalibrated annually in accordance with the procedure under 40 CFR 60.13(b).

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

D.5.16 Record Keeping Requirements

(a) To document compliance with Condition D.5.13, the Permittee shall maintain records of the once per day visible emission notations of the Coal Dryer Stack 75 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements of this permit.

SECTION D.6 FACILITY OPERATION CONDITIONS

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

Ore Dryer

One (1) Ore Dryer, constructed in 1998, with a nominal heat capacity of 27MMBtu per hour and processes a nominal 115 tons of ore per hour, with emissions exhausting through Baghouse B-76, then Stack 76.

(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 Particulate Matter (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-19160-00076, issued April 13, 2005 and 326 IAC 2-2-3, the PM/PM_{10} (where PM_{10} includes both filterable and condensable components) emissions from the Ore Dryer baghouse B-76 shall not exceed a PM/PM_{10} emission rate of 0.01 grains per dscf through Stack 76. The PM/PM_{10} shall not exceed 1.1 lb per hour from Ore Dryer Stack 76.

D.6.2 Particulate (PM/PM_{10}) (Particulate Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Pursuant to SSM033-12992 -00076, issued May 15, 2002 and 326 IAC 6-3-2, the particulate matter (PM) from the Ore Dryer shall be limited as follows:

Process	Process Weight (Lbs/hr)	PM Emission Limit (Lbs/hr)
Ore Dryer	230,000	52.7

This limit was calculated as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.6.3 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to SSM033-12992-00076, issued on May 15, 2002 and 326 IAC 2-2-3, the visible emissions discharged into the atmosphere from the ore dryer Stack 76 shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

(b) Pursuant to SSM033-12992 -00076, issued on May 15, 2002 and 326 IAC 2-2-3, the visible emissions discharged into the atmosphere from the vents and openings in the buildings housing the ore dryer shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings) taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

D.6.4 Sulfur Dioxide (SO_2) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the sulfur dioxide emissions from the Ore Dryer shall not exceed 0.00059 pounds per MMBtu of heat input. The SO_2 emissions shall not exceed 0.016 pounds per hour from the Ore Dryer Stack 76.

D.6.5 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the volatile organic compound emissions from the Ore Dryer shall not exceed 0.0053 pounds per MMBtu of heat input. The VOC emissions shall not exceed 0.15 pounds per hour from Ore Dryer Stack 76.

D.6.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the carbon monoxide emissions from the Ore Dryer shall not exceed 0.082 pounds per MMBtu of heat input. The CO emissions shall not exceed 2.3 pounds per hour from Ore Dryer Stacks 76.

D.6.7 Nitrogen Oxides (NOx) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992-00076, issued May 15, 2002 and 326 IAC 2-2-3, the nitrogen oxide(s) emissions from the Ore Dryer shall be controlled by the use of low-NOx natural gas-fired burners and shall not exceed 0.049 pounds per MMBtu of heat input. The NOx emissions shall not exceed 1.35 pounds per hour from Ore Dryer Stacks 76.

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

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the ore dryer and associated baghouse.

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

D.6.9 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within five (5) years from February 19, 2004 and in order to demonstrate compliance with Condition D.6.1, D.6.2 and D.6.3, the Permittee shall perform PM/PM_{10} testing on the coal dryer baghouse Stack 75, utilizing testing methods as approved by the Commissioner in accordance with Section C. 10- Performance Testing. These tests shall be repeated at least once every five (5) years. PM_{10} includes filterable and condensable components.

D.6.10 Particulate (PM/PM_{10}) Best Available Control Technology [326 IAC 2-2-3]

Pursuant to SSM033-12992-00076, issued May 15, 2002, the baghouse for particulate control shall be in operation and control emissions from the ore dryer at all times the ore dryer is in operation.

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

D.6.11 Visible Emission Notations

(a) Visible emission notations of the Ore Dryer Stack 76, exhaust 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 response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.6.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.11 - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the coal dryer and crusher. 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.11 - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.6.13 Record Keeping Requirements

(a) To document compliance with Condition D.6.11, the Permittee shall maintain records of the once per day visible emission notations of the ore dryer Stack 76 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements of this permit.

SECTION D.7 FACILITY OPERATION CONDITIONS

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

Ore Processing

One (1) One (1) Ore Preparation Process, constructed in 1998, consisting of a roll screener, ore press (grinder) and magnetic separators with particulate matter emissions controlled by a baghouse, exhausting to Stack 74.

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

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

D.7.1 Particulate (PM/PM_{10}) (Particulate Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the PM from the Ore Preparation Process 74, shall not exceed the pound per hour emission rate established as E in the following formula:

Process	Process Weight (Lbs/hr)	PM Emission Limit (Lbs/hr)
Ore Prep Process	230,000	52.7

This limit was calculated as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.7.2 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997 and 326 IAC 2-2-3, the visible emissions from vents, stacks and building roof monitors, unless otherwise specified, shall not exceed three (3%) percent opacity. Visible emissions shall be determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10- Preventive Maintenance Plan, of this permit, is required for the ore preparation process baghouse.

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

D.7.4 Particulate (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

The ore preparation baghouse for particulate control shall be in operation and control emissions from the ore preparation process at all times the ore preparation process is in operation.

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

D.7.5 Visible Emission Notations

(a) Visible emission notations of the ore preparation Stack 74, exhaust 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 response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.7.6 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the ore preparation process at least once per day when the ore preparation process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 and 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.16 - 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.16 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C.13 - 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 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.11 - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the coal dryer and crusher. 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.11 - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.7.8 Record Keeping Requirements

(a) To document compliance with Condition D.7.5 the Permittee shall maintain records of the once per day visible emission notations of the ore preparation Stack 74 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.7.6 the Permittee shall maintain records of the once per day pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.

SECTION D.8 FACILITY OPERATION CONDITIONS

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

Material Storage and Handling

(a) Silos and Bins

Fourteen (14) material storage silos and bins equipped with air bin vent filters to vent the displaced air for particulate matter emissions control, consisting of the following:

(1) One (1) storage bin, constructed in 1998, with a nominal capacity of 8,000 cubic feet, exhausting through Stack 44.

(2) One (1) EAF dust silo, constructed in 1998, with a nominal capacity of 7,970 cubic feet, exhausting through Stack 45.

(3) One (1) carbon injection silo, constructed in 1998, with a nominal capacity of 2,300 cubic feet, exhausting through Stack 46.

(4) Four (4) coal silos, constructed in1998, with a nominal capacities of 8,909, 23,420, 19,712 and 24,289 cubic feet respectively, exhausting through Stacks 47 through 50.

(5) One (1) SAF bin, constructed in 1998, with a nominal capacity of 7,970 cubic feet, exhausting through Stack 86.

(6) One (1) zinc silo, constructed in 2003, with a maximum throughput rate of 3.0 tons of recycled zinc per hour, controlled by one (1) filter, exhausting through Stack 80.

(7) One (1) ash silo, constructed in 2003, with a maximum throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, exhausting into the building.

(8) Four (4) storage bins, constructed in 1998.

(b) Material Recycling and Unloading Systems

(1) One (1) SAF dust recycling system,79, constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, exhausting into the building.

(2) One (1) zinc silo 80, constructed in 2003 with a nominal throughput rate of 3.0 tons of recycled zinc per hour, controlled by one (1) filter, exhausting through Stack 80.

(3) One (1) ash silo 81 and constructed in 2003 with a nominal throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, and exhausting into the building.

(4) One (1) EAF dust unloading process 82 and constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, and exhausting into the building.

(5) One (1) vacuum system, constructed in 2003 with a nominal throughput rate of 3.0 tons of dust per hour, controlled by one (1) filter, exhausting into the building.

(6) One (1) zinc silo unloading process, constructed in 2003 with a nominal throughput rate of 3.0 tons of zinc per hour, controlled by one (1) filter, exhausting into the building.

(7) One (1) ash silo unloading process, constructed in 2003 with a nominal throughput rate of 3.0 tons of ash per hour, controlled by one (1) filter, exhausting into the building.

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

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

D.8.1 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to CP-033-8091-00043, issued on June 25, 1997, and 326 IAC 2-2-3, the visible emissions discharged into the atmosphere from the silos storing coal, iron ore, lime, and rotary hearth furnace dust shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

(b) Pursuant to CP-033-8091-00043, issued on June 25, 1997, and 326 IAC 2-2-3, the fugitive particulate emissions into the atmosphere from the coal, iron ore and rotary hearth furnace dust handling system shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 readings taken accordance with EPA method 9, Appendix A) pursuant to 326 IAC 5-1-4.

D.8.2 Particulate (PM/PM_{10}) (PSD) [326 IAC 2-2]

Pursuant to MSM033-17936-00076, issued October 9, 2003 and 326 IAC 2-2, the PM/PM_{10} emissions from units 79 through 85 shall not exceed the emissions limits listed in the table below:

Unit ID	Unit Description	PM Emission Limit (lb/hr)	PM_{10} Emission Limit (lb/hr)
79	SAF dust recycling system	0.015	0.15
80	zinc silo	0.08	0.08
81	ash silo	0.08	0.08
82	EAF dust unloading process	0.21	0.21
83	vacuum system	0.02	0.02
84	zinc silo unloading system	0.02	0.02
85	ash silo unloading system	0.02	0.02

This is equivalent to 2.54 tons per year of PM/PM_{10} emissions from these units. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.8.3 Part 70 Minor Source Modification [326 IAC 2-7-10.5(d)(5)]

Pursuant to MSM033-17936-00076, issued October 9, 2003 and 326 IAC 2-7-10.5(d)(5) (Part 70 Minor Source Modification), filters equipped with units 79 through 85 shall comply with the following limits when in operation:

(a) At least 99% control efficiency, and

(b) No visible emissions.

D.8.4 Particulate (PM/PM_{10}) (Particulate Matter Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

Pursuant to MSM 033-17936-00076, issued October 9, 2003 and 326 IAC 6-3-2 Particulate Matter Emissions Limitations for Manufacturing Processes, particulate matter from each of the units 79 through 85 shall not exceed 8.56 pounds per hour when operating at a process weight rate of 3.0 tons per hour.

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.8.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10- Preventive Maintenance Plan, of this permit, is required for the silo bin vents, units 79, 82 through 85 and their filters used as control devices.

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

D.8.6 Particulate (PM/PM_{10}) Control

(a) In order to comply with Condition D.8.1, the bin vent filters for particulate control shall be in operation and control emissions from the silos at all times the silos are being loaded or unloaded.

(b) In order to comply with Conditions D.8.2, D.8.3 and D.8.4, the filters for PM/PM10 control shall be in operation and control emissions from units 79 through 85 at all times that these units are in operation.

Compliance Monitoring Requirements]326 IAC 2-7-6(1)] [326 IAC2-7-5(1)]

D.8.7 Visible Emission Notations

(a) Visible emission notations of the Stack 80, exhaust 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 response steps in accordance with Section C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C.16 - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.8.8 Record Keeping Requirements

(a) To document compliance with Condition D.8.7, the Permittee shall maintain records of the once per day visible emission notations of the ore preparation Stack 80 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.

SECTION D.9 FACILITY OPERATION CONDITIONS

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

Outdoor Storage and Handling

(a) One (1) coal and ore Stacker conveyer with a nominal capacity of 2,500 tons per hour. Fugitive emissions controlled as needed by water sprays, to control fugitive dust at transfer and discharge points.

(b) One (1) storage pile of coal with a nominal storage capacity of 20, 000 tons and a nominal pile acreage of 1.0 acre and a nominal throughput of 300,000 tons per year,

(c) One (1) storage pile of iron ore with a nominal storage capacity of 120,000 tons and a nominal pile acreage of 5.7 acres and a nominal throughput of 900,000 tons per year and,

(d) One (1) storage pile of fluxstone (lime dolomite) with a storage capacity of 30,000 tons and a pile acreage of 0.5 acres and a nominal throughput of 80,000 tons per year,

(e) Above ground coal and iron ore reclaim hoppers used by the front end loaders to transport material from the storage piles to the conveying system.

(f) Closed conveyers with a nominal capacity of 1,100 tons per hour to move coal and ore to storage silos or coal crusher.

(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 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to CP-033-8091-00043, issued June 25, 1997and 326 IAC 2-2-3, water shall be applied at each transfer and discharge point of the coal and iron ore stacker. The material dropping distance shall be maintained at less than three (3) feet.

(b) Pursuant to CP-033-8091-00043, issued on June 25, 1997 and 326 IAC 2-2-3, the coal and iron conveyers shall be covered and the transfer points enclosed. The visible emissions at the discharged and transfer point shall not exceed three (3%) percent opacity determined by a six (6) minute average (24 reading taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

(c) Pursuant to CP-033-9187-00043, issued March 24, 1998 and 326 IAC 2-2-3, the material reclaim hoppers used by the front end loaders to transport material from the storage piles to the conveying system shall be located above ground. The discharge dropping point distance shall be less than three (3) feet.

(d) Pursuant to CP-033-9187-00043, issued on March 24, 1998, water shall be applied to the storage piles to minimize fugitive dust. Water shall be applied continuously during stacking. The material drop shall be maintained at less than three (3) feet.

(e) Pursuant to CP-033-9187-00043, issued on March 24, 1998 and 326 IAC 2-2-3, the visible emissions from all transfer and discharge points shall be limited to three percent (3%) opacity determined by six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

(f) Pursuant to CP-033-9187-00043, issued on March 24, 1998 and 326 IAC 2-2-3, the opacity of fugitive particulate emissions from the storage piles shall be limited to ten (10%) percent opacity determined by a six (6) minute average (24 reading**s** taken in accordance with EPA Method 9, Appendix A). These limitations may not apply during periods, when application of fugitive particulate matter control measures is either ineffective or unreasonable due to sustained very high wind speeds. During such periods, the Permittee must continue to implement all reasonable fugitive particulate matter control measures.

D.9.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B.10 - Preventive Maintenance Plan, of this permit, is required for the conveyors.

SECTION D.10 FACILITY OPERATION CONDITIONS

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

SAF Building Dust Control System

One (1) SAF Building Dust Control System; identified as DC-90; constructed in 2006; with emissions controlled by a 300,000 scfm baghouse; exhausting to Stack 90.

(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 Limitations (PM/PM_{10}) - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to PSD SSM 033-22673-00076, issued October 13, 2006, and 326 IAC 2-2-3 (BACT), the filterable PM emissions from the SAF Building Dust Control System shall not exceed 0.0018 grains per dry standard cubic foot (gr/dscf) and 4.63 pounds per hour (lb/hr).

(b) Pursuant to PSD SSM 033-22673-00076, issued October 13, 2006, and 326 IAC 2-2-3 (BACT), the filterable and condensible PM/PM_{10} emissions from the SAF Building Dust Control System shall not exceed 0.004 grains per dry standard cubic foot (gr/dscf) and 10.29 pounds per hour (lb/hr).

D.10.2 Opacity Limits - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to PSD SSM 033-22673-00076, issued October 13, 2006, and 326 IAC 2-2-3 (BACT), visible emissions of the exhaust from the SAF Building Dust Control System shall not exceed three percent (3%) opacity, as determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

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

A Preventive Maintenance Plan, in accordance with Condition B.10 (Preventive Maintenance Plan), of this permit, is required for the SAF Building Dust Control System and its associated baghouse.

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

D.10.4 Particulate Matter (PM/PM_{10}) Control [326 IAC 2-2-3]

(a) Except as otherwise provided by statute, rule, or in this permit, and in order to comply with Condition D.10.1, the baghouse for PM/PM_{10} control shall be in operation and control emissions from the SAF Building Dust Control System at all times any PM-emitting facility in the SAF Building or SAF Building Dust Control System is 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 or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.10.5 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

Within 60 days after achieving full operation, but no later than 180 days after initial start up, the Permittee shall perform PM/PM_{10} and opacity testing on the stack emissions from the SAF Building Dust Control System in order to demonstrate compliance with the PM/PM_{10} and opacity limits established by 326 IAC 2-2-3. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM_{10} includes filterable and

condensible PM_{10}. Testing shall be completed using methods approved by the Commissioner and conducted in accordance with Section C - Performance Testing.

D.10.6 Visible Emission Notations

(a) Visible emission notations of the SAF Building Dust Control System baghouse exhaust (Stack 90) 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 response steps in accordance with Condition C.16 (Response to Excursions or Exceedances). Failure to take response steps in accordance with Condition C.16 (Response to Excursions or Exceedances) shall be considered a deviation from this permit.

D.10.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the SAF Building Dust Control System at least once per day when the SAF building Dust Control System is in operation. When for any one reading, the pressure drop across the baghouse is outside a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C.16 (Response to Excursions or Exceedances). A pressure reading that is outside the appropriate range is not a deviation from this permit. Failure to take response steps in accordance with Condition C.16 (Response to Excursions or Exceedances), shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Condition C.13 (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.10.8 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) 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 (Condition B.11 - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Condition B.11 - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.10.9 Record Keeping Requirements

(a) To document compliance with Condition D.10.6, the Permittee shall maintain records of the visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.10.7, the Permittee shall maintain records of the pressure drop readings required by that condition. 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).

(c) All records shall be maintained in accordance with Condition C.19 (General Record Keeping Requirements) of this permit.

SECTION D.11 FACILITY OPERATION CONDITIONS

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

Insignificant Activities

1. Specifically regulated insignificant activities, as defined in 326 IAC 2-7-1(21):

   (a) The following equipment related to manufacturing activities not resulting in the emission of HAPS: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

   (b) Bentonite railcar unloading [326 IAC 6-3-2]

2. Other insignificant activities

   (a) Space heaters, process heaters, or boilers using the following fuels:
      (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
      (ii) 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.

   (b) Combustion source flame safety purging on startup.

   (c) The following VOC and HAP storage containers:
      (i) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
      (ii) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

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

   (e) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.

   (f) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

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

   (h) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

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

   (j) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.

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

   (l) Covered conveyors for limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

(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): Insignificant Activities (continued):

(m) Underground conveyors.

(n) Coal bunker and coal scale exhausts and associated dust collector vents.

(o) 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.

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

(q) 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.

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

(s) Purge double block and bleed valves.

(t) Filter or coalescer media changeout.

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

(v) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(w) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).

3. Other Activities less than significant level

(a) Diesel generators

(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 Particulate (PM/PM_{10}) (Particulate Matter Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations), the particulate emissions from the brazing equipment, cutting torches, soldering equipment and welding equipment shall not exceed the particulate limitation in Section C.1 - Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour.

(b) Pursuant to 326 IAC 6-3-2 Particulate Emission Limitations for Manufacturing Processes, the allowable particulate emission pound per hour limitation from the bentonite railcar unloading shall be calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Steel Dynamics, Inc. – Iron Dynamics Division
Source Address: 4500 County Road 59, Butler, IN 46721
Mailing Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-12614-00076

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Pease check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify) _____

☐ Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
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Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Steel Dynamics, Inc. – Iron Dynamics Division
Source Address:	4500 County Road 59, Butler, IN 46721
Mailing Address:	4500 County Road 59, Butler, IN 46721
Part 70 Permit No.:	T033-12614-00076

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) 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 the following are not applicable, mark N/A

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NOX, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
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
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name:	Steel Dynamics, Inc. – Iron Dynamics Division
Source Address:	4500 County Road 59, Butler, IN 46721
Mailing Address:	4500 County Road 59, Butler, IN 46721
Part 70 Permit No.:	T033-12614-00076

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.	
☐ THEFOLLOWING 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: _____

Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Fugitive Dust Control Plan

Steel Dynamics, Inc. - Flat Roll Division
4500 County Road 59
Butler, Indiana

Section 1 – Introduction

The following control plan, when implemented, is designed to reduce uncontrolled fugitive dust based on PM10 mass emissions basis from paved roadways and parking lots, unpaved roadways and traveled open areas, storage piles, and slag processing operations.

The plan shall be implemented on a year-round basis until such time as another plan is approved or ordered by the Indiana Department of Environmental Management.

Section 2 – Paved Roads and Parking Lots

Except as provided below, paved roads and parking lots shall be controlled by the use of a vehicular vacuum sweeper or by water application and shall be performed at least once every 14 day period. Upon request of the Assistant Commissioner, Steel Dynamics, Inc. - Flat Roll Division shall sample and provide to IDEM surface material silt content and surface dust loadings in accordance with field and laboratory procedures provided in the document: C. Cowherd, Jr. et. al., Iron and Steel Plat Open Dust Source Fugitive Emission Evaluation, PE-600/2-79-103, U.S. Environmental Protection Agency, *Cincinnati*, OH, May 1979.. IDEM will have the right to specify road segments to be sampled.

The period listed above for cleaning of the paved road segments and parking lots may be extended by one day for each time:

(a) 0.1 or more inches of rain has accumulated during the 24-hour period prior to the scheduled cleaning.
(b) It is raining at the time of the scheduled cleaning.
(c) It is below freezing at the time of the scheduled cleaning.

Section 3 – Unpaved Roads

Unpaved maintenance roads outside of the slag processing area shall be treated to control at least 90 percent instantaneous control based on a PM10 mass emission basis. All unpaved roads shall be treated with a commercially produced dust suppressant specifically manufactured for that purpose, and shall be approved in writing, by the Indiana Department of Environmental Management for the use in the State of Indiana as a chemical dust suppressant. As an alternative, Steel Dynamics, Inc. - Flat Roll Division may pave previously unpaved road sections and apply paved road cleaning measures to these newly pave roads at frequencies similar to existing paved roads in the immediate area.

All roads at the slag handling processing facility shall be unpaved and treated by plant personnel with an asphaltic emulsion at a rate of at least 0.16 gallons per square yard, once per month based on average daily 70-80 vehicles of travel.

Asphalt emulsion products (AE-30) or equivalent shall be applied on a frequency of once per month, April through October, unless conditions require frequency to increase or as required

by IDEM or USEPA, to insure fugitive dust control. Snow cover, inclement weather and freezing/thawing shall preclude application November through March.

Equivalent suppressant shall require written approval from IDEM shall be applied at a rate equivalent to 0.16 gallons per square yard. The initial treatment and subsequent treatments shall immediately follow the first application rates and frequencies shall be sufficient to provide at least 85 percent instantaneous control efficiency.

The above dosage may be too high to be absorbed by the road in one step. In this case, application may be done in two or more stages using lower concentrations but with corresponding increase in treatment frequency.

Treating of unpaved road segments may be delayed by one day when:

(a) 0.1 or more inches of rain have accumulated during the 24-hour period prior to the scheduled treatment.
(b) Road segments are saturated with water such that chemical dust suppressants cannot be accepted by the surface.
(c) Road segments are frozen or covered by ice, snow or standing water.
(d) The road segment or area is closed or abandoned. Abandoned roads will be barricaded.
(e) It is raining at the time of the scheduled treatment.

Section 4 – Open Aggregate Piles

Open aggregate piles consist of slag in various stages of processing. To maintain product quality and chemical stability, watering the stockpiles shall be the primary means of dust control. Water must be limited as to keep the moisture content of the product within standards.

Wind erosion – When visible emissions exceed 5 percent opacity from any piles, the affected piles shall be sprayed as required by water to eliminate wind erosion. Water added to the product during processing provides added procedures specified in Section 7.

Section 5 – Slag Processing

Emissions from slag processing operations shall be controlled through the application of water. Visible emissions shall not exceed 10% by Method 9, 6-minute average evident from any batch drop, continuous drop, screening or crushing operation.

Section 6 – Material Spill control

Incidents of material spillage leading to visible fugitive dust shall be investigated and properly cleaned up.

Section 7 – Unpaved Roadway and Unpaved Area Opacity Limits

Visible emissions from any unpaved road segment or unpaved area shall not exceed 5 percent opacity as averaged over any consecutive 3-minute period. All visible emission observations shall be determined in accordance with 40 CFR 60 Appendix A Method 9, except as otherwise provided below:

(a) In viewing fugitive emissions generated by vehicular traffic, the observer shall be positioned in accordance with the provisions of paragraph 2.1 of Method 9 except that the observer need not position himself with his back to the sun.

(b) The observer shall begin reading when a vehicle crosses his line of sight which shall be approximately perpendicular to the trajectory of that vehicle. The observer shall continue to observe and record visible emission opacities at 15-second intervals along that same line of sight until no less than twelve consecutive opacity readings have been obtained.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source and Administrative Amendment

Source Description and Location

Source Name:	Steel Dynamics, Inc. - Iron Dynamics Division
Source Location:	4500 County Road 59, Butler, IN 46721
County:	Dekalb
SIC Code:	3312
Operation Permit No.:	T 033-12614-00076
Operation Permit Issuance Date:	October 4, 2006
Minor Source Modification No.:	033-33415-00076
Administrative Amendment No.:	033-33416-00076
Permit Reviewer:	Kristen Willoughby

Source Definition

The source consists of:

(a) Steel Dynamics, Inc., - Flat Roll Division, the primary operation, located at 4500 County Road 59, Butler, Indiana 46721; and

(b) Steel Dynamics, Inc. – Iron Dynamics Division, the supporting operation, located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033-8068-00043) and Steel Dynamics, Inc. – Iron Dynamics Division (033-12614-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. – Iron Dynamics Division, the supporting operation.

Existing Approvals

The source was issued Part 70 Operating Permit No. T033-12614-00076 on October 4, 2006. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Significant Source Modification	033-22673-00076	October 13, 2006
Administrative Amendment	033-24152-00076	January 11, 2007
Revocation	033-24227-00076	February 6, 2007
Significant Permit Modification	033-23084-00076	February 9, 2007
Administrative Amendment	033-24207-00076	February 15, 2007
Revocation	033-24375-00076	March 7, 2007
Significant Source Modification	033-26976-00076	December 30, 2009
Significant Permit Modification	033-27112-00076	January 20, 2010
Administrative Amendment	033-28976-00076	February 19, 2010

The source submitted an application for a Part 70 Operating Permit Renewal on December 28, 2010.

County Attainment Status

The source is located in Dekalb County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Dekalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Dekalb County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$, SO_2, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Dekalb County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a steel mill, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

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** (ton/yr)
PM	>100
PM_{10}	>100
$PM_{2.5}$	>100
SO_2	>100
VOC	>100
CO	>100
NO_X	>100
GHGs as CO_2e	>100,000
Single HAP	<10
Total HAPs	<25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, emissions of GHGs are equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) These emissions are based upon Significant Permit Modification No. 033-27112-00076.

This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Steel Dynamics, Inc. - Iron Dynamics Division on July 11, 2013, relating to a RHF millings processing area. The following is a list of the proposed emission units:

(a) One (1) RHF millings processing area, constructed in 2007 and permitted in 2013, with a nominal throughput of 100 tons per hour, and consisting of the following:

(1) One (1) storage pile, identified as RHF Millings Pile, with a nominal pile area of 41,250 square feet.

(2) One (1) surge bin, with a nominal throughput of 100 tons per hour.

(3) One (1) screen, with a nominal throughput of 100 tons per hour.

(4) One (1) storage pile, identified as RHF Midsize, Oversized, and Temporary Pile, with a nominal pile area of 14,000 square feet.

(5) One (1) stacker, with a nominal throughput of 100 tons per hour.

(6) One (1) storage pile, identified as RHF Byproduct / Blending Pile, with a nominal pile area of 95,850 square feet.

(7) Unpaved roads.

Enforcement Issues

IDEM is aware that equipment has been constructed prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the Modification	
Pollutant	**Potential To Emit** (ton/yr)
PM	22.26
PM_{10}	6.43
$PM_{2.5}$	0.70
SO_2	-
VOC	-
CO	-
NO_X	-
Single HAPs	-
Total HAPs	-

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

This source modification is subject to 326 IAC 2-7-10.5(e)(3)(A), because the modification has a potential to emit less than 25 tpy and greater than 5 tpy of PM and PM10 particulate matter. Additionally, the modification will be incorporated into the Part 70 Operating Permit through an administrative amendment issued pursuant to 326 IAC 2-7-11(a)(7), because it revises descriptive information where the revision will not trigger a new applicable requirement or violate a permit term.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification and administrative amendment, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (ton/yr)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**
Storage Piles	0.33	0.16	0.02	-	-	-	-	-
Screening Process	0.45	0.21	0.03	-	-	-	-	-
Unpaved Roads	3.91	1.04	0.10	-	-	-	-	-
Total for Modification	4.69	1.41	0.16	-	-	-	-	-
For purposes of evaluating this project, emissions from paved road traffic for transporting RHF Milling and RHF Byproduct/Blended material to and from the storage area are assumed to be less than emissions from paved road traffic transporting an equivalent amount of RHF Milling and raw material to and from the facility entrance, a much longer distance. As the RHF Midsize and Oversize materials and blending materials would require transport to and from the facility entrance regardless, it is assumed that there is no increase in paved road emissions from this traffic due to this project.								
Significant Level	25	15	10	40	40	100	40	75,000 CO_2e

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

The Permittee has provided information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval.

Federal Rule Applicability Determination

There is no change in the federal rule applicability due to this modification.

NSPS:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

NESHAP:

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

CAM:

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The proposed processes do not utilize a control device, as definied in 40 CFR 64.1. Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new processes as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
The Permittee has provided information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. Additional information on this is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of this facility will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

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.

There is no change to the compliance determination and monitoring requirements dues to this modification.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T033-12614-00076. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Summary of Model Updates

While there are model updates applicable to this source, they are not being made as part of this modification. An application for a Part 70 Operating Permit Renewal was submitted on December 28, 2010. The model updates will be made in the Part 70 Operating Permit Renewal.

Modification No. 1:

Section A.3 - Emission Units and Pollution Control Equipment Summary has been updated to add the RHF millings processing area.

Modification No. 2:

Condition C.6 - Fugitive Particulate Matter Emission Limitations has been updated to indicate that fugitive emissions shall be controlled pursuant to the attached fugitive dust control plan.

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

Steel Dynamics, Inc. – Iron Dynamics Division consists of the following emission units and pollution control devices:

***

Outdoor Storage and Handling

(a) One (1) coal and ore Stacker conveyer with a nominal capacity of 2,500 tons per hour. Fugitive emissions controlled as needed by water sprays, to control fugitive dust at transfer and discharge points.

(b) One (1) storage pile of coal with a nominal storage capacity of 20,000 tons and nominal pile acreage of 1.0 acre and a nominal throughput of 300,000 tons per year.

(c) One (1) storage pile of iron ore with a nominal storage capacity of 120,000 tons and nominal pile acreage of 5.7 acres and a nominal throughput of 900,000 tons per year.

(d) One (1) storage pile of fluxstone (lime dolomite) with a storage capacity of 30,000 tons and a pile acreage of 0.5 acres and a nominal throughput of 80, 000 tons per year.

(e) Above ground coal and iron ore reclaim hoppers used by the front end loaders to transport material from the storage piles to the conveying system.

(f) Closed conveyers with a nominal capacity of 1,100 tons per hour to move coal and ore to storage silos or coal crusher.

(g) One (1) RHF millings processing area, constructed in 2007 and permitted in 2013, with a nominal throughput of 100 tons per hour, and consisting of the following:

(1) One (1) storage pile, identified as RHF Millings Pile, with a nominal pile area of 41,250 square feet.

(2) One (1) surge bin, with a nominal throughput of 100 tons per hour.

(3) One (1) screen, with a nominal throughput of 100 tons per hour.

(4) One (1) storage pile, identified as RHF Midsize, Oversized, and Temporary Pile, with a nominal pile area of 14,000 square feet.

(5) One (1) stacker, with a nominal throughput of 100 tons per hour.

(6) One (1) storage pile, identified as RHF Byproduct / Blending Pile, with a nominal pile area of 95,850 square feet.

(7) Unpaved roads.

***

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to ~~a~~**the** fugitive dust plan ~~submitted for approval by~~

~~IDEM no later than ninety (90) days after issuance of this permit for approval by IDEM~~**as in Attachment A**.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 033-33415-00076 and Administrative Amendment No. 033-33416-00076. The staff recommend to the Commissioner that this Part 70 Minor Source Modification and Administrative Amendment be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Kristen Willoughby at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-3031 or toll free at 1-800-451-6027 extension 3-3031.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
RHF Millings Screening Operation

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Rd 59, Butler, IN 46721
Minor Source Modification No.: 033-33415-00076
Administrative Amendment No.: 033-33416-00076
Reviewer: Kristen Willoughby

Summary of PTE Increase

Uncontrolled Potential to Emit

	Pollutant		
	PM	**PM_{10}**	**$PM_{2.5}$**
Storage Piles (tpy)	0.98	0.46	0.07
Screening Process (tpy)	1.71	0.75	0.11
New Unpaved Roads (tpy)	19.56	5.21	0.52
Total (tpy)	**22.26**	**6.43**	**0.70**
Minor Source Modification/Exemption Threshold[1] (tpy)	**5**	**5**	**5**
Triggered?	**Yes**	**Yes**	**No**

[1]326 IAC 2-1.1-3(e)(1)(A) and 2-7-10.5(e)(3)(A)
[2]326 IAC 2-2-1(ww)(1)

Controlled Potential to Emit

	Pollutant		
	PM	**PM_{10}**	**$PM_{2.5}$**
Storage Piles (tpy)	0.33	0.16	0.02
Screening Process (tpy)	0.45	0.21	0.03
New Unpaved Roads (tpy)	3.91	1.04	0.10
Total (tpy)	**4.69**	**1.41**	**0.16**

Past Actual to Potential Emissions Increase Calculations

Calculation Methodology

- Paved road emissions are not expected to increase due to this project.
- Unpaved road emissions in the screening area are given a baseline emissions of zero and projected emissions equivalent to their PTE.
- Storage Piles and Screening Process are new units, so baseline emissions are zero and projected emissions are the PTE.

Project Emissions Increases - PM	Baseline Actual Emissions		Projected Emissions	Projected - Baseline Emissions (tpy)
Emission Unit Description	Controlled Emissions (tpy)	24-Month Baseline Period	Controlled Emissions (tpy)	
Storage Piles	0.00	2010-11	0.33	0.33
Screening Process	0.00	2010-11	0.45	0.45
Paved Roads				0.00
Unpaved Roads	0.00	2010-11	3.91	3.91
			Total Emissions Increase (tpy):	4.69
			SER (tpy):	25
			Exceeds SER:	NO

Project Emissions Increases - PM10	Baseline Actual Emissions		Projected Emissions	Projected - Baseline Emissions (tpy)
Emission Unit Description	Controlled Emissions (tpy)	24-Month Baseline Period	Controlled Emissions (tpy)	
Storage Piles	0.00	2010-11	0.16	0.16
Screening Process	0.00	2010-11	0.21	0.21
Paved Roads				0.00
Unpaved Roads	0.00	2010-11	1.04	1.04
			Total Emissions Increase (tpy):	1.41
			SER (tpy):	15
			Exceeds SER:	NO

Project Emissions Increases - PM2.5	Baseline Actual Emissions		Projected Emissions	Projected - Baseline Emissions (tpy)
Emission Unit Description	Controlled Emissions (tpy)	24-Month Baseline Period	Controlled Emissions (tpy)	
Storage Piles	0.00	2010-11	0.02	0.02
Screening Process	0.00	2010-11	0.03	0.03
Paved Roads				0.00
Unpaved Roads	0.00	2010-11	0.10	0.10
			Total Emissions Increase (tpy):	0.16
			SER (tpy):	10
			Exceeds SER:	NO

Storage Pile Loading Emission Factors

Emission Factors For Determining Controlled PTE

Facility ID	Description	k			U[1] (mph)	M[2] (%)	TSP[1] (lbs/ton)	PM_{10}[1] (lbs/ton)	$PM_{2.5}$[1] (lbs/ton)
		TSP	PM_{10}	$PM_{2.5}$					
SP 1	RHF Milling Piles	0.74	0.35	0.053	8.6	2.0	4.79E-03	2.26E-03	3.43E-04
SP 2	RHF Byproduct/Blending Piles	0.74	0.35	0.053	8.6	2.0	4.79E-03	2.26E-03	3.43E-04
SP 3	RHF Midsize, Oversize, and Temporary Piles	0.74	0.35	0.053	8.6	2.0	4.79E-03	2.26E-03	3.43E-04

[1] Emission factors obtained from U.S. EPA AP-42, Section 13.2.4 and calculated using Equation 1 as follows:
E (lbs/ton) = k * 0.0032 * ((U/5)^1.3) /((M/2)^1.4)
Where, k = particle size multiplier
U = mean wind speed (mph) Annual average from 2011 Climatological Data for Fort Wayne Intl Airport (http://www7.ncdc.noaa.gov/IPS/lcd/lcd.html
M = material moisture content (%)

[2] AP 42 13.2.4-1, assumes the maximum moisture content for slag. Based on use of water sprays, as needed

Emission Factors For Determining Uncontrolled PTE

Facility ID	Description	k			U[1] (mph)	M[2] (%)	TSP[1] (lbs/ton)	PM_{10}[1] (lbs/ton)	$PM_{2.5}$[1] (lbs/ton)
		TSP	PM_{10}	$PM_{2.5}$					
SP 1	RHF Milling Piles	0.74	0.35	0.053	8.6	0.92	1.42E-02	6.71E-03	1.02E-03
SP 2	RHF Byproduct/Blending Piles	0.74	0.35	0.053	8.6	0.92	1.42E-02	6.71E-03	1.02E-03
SP 3	RHF Midsize, Oversize, and Temporary Piles	0.74	0.35	0.053	8.6	0.92	1.42E-02	6.71E-03	1.02E-03

[1] Emission factors obtained from U.S. EPA AP-42, Section 13.2.4 and calculated using Equation 1 as follows:
E (lbs/ton) = k * 0.0032 * ((U/5)^1.3) /((M/2)^1.4)
Where, k = particle size multiplier
U = mean wind speed (mph) Annual average from 2011 Climatological Data for Fort Wayne Intl Airport (http://www7.ncdc.noaa.gov/IPS/lcd/lcd.html
M = material moisture content (%)

[2] AP 42 13.2.4, assumes the mean value for slag material if no water spray is applied

Screening Process Controlled PTE

Material	PM Particle Size Multiplier (k)	PM_{10} Particle Size Multiplier (k)	$PM_{2.5}$ Particle Size Multiplier (k)	Wind Speed (U) (mph)	Moisture Content (M) (%)	Basis
All RHF Screening, Blending	0.74	0.35	0.053	8.6	2.00	AP-42, Section 13.2.4. M is the on maximum allowable for equation 1 based on use of water sprays, as needed. U is the annual average wind speed from 2011 Climatological Data for Fort Wayne Intl Airport. (http://www7.ncdc.noaa.gov/IPS/lcd/lcd.html)

Process Step	Hourly Process Rate (tph)	Annual Process Rate (tpy)	Material
Material Receiving			
RHF Millings from Process to Front End Loader	100	32,465	RHF Millings
Screening Operations			
Unscreened RHF Milling Piles to Front End Loader	100	32,465	RHF Millings
Front End Loader to Surge Bin	100	32,465	RHF Millings
Surge Bin to Screening	100	32,465	RHF Millings
Screening	100	32,465	RHF Millings
Screening to Temporary Storage	100	32,465	RHF Byproduct, Medium and Oversized Screenings
Temporary Storage to Front End Loader	100	32,465	RHF Byproduct, Medium and Oversized Screenings
RHF Midsize and Oversize Piles			
RHF Midsize and Oversize Piles to Front End Loader	100	7,956	RHF Medium and Oversized Screenings
Front End Loader to Customer Trucks	100	7,956	RHF Medium and Oversized Screenings
RHF Byproduct and Blending Piles			
RHF Byproduct/Blending Piles to Front End Loader	100	48,530	RHF Byproduct Screenings, Blending Raw Materials
Front End Loader to Stacker	100	48,530	RHF Byproduct Screenings, Blending Raw Materials
RHF Byproduct/Blending Piles to Front End Loader	100	48,530	RHF Byproduct Screenings/Blended
Front End Loader to Hopper (existing process)	100	48,530	RHF Byproduct Screenings/Blended

Process Step	PM Emission Factor (lb/ton)	PM_{10} Emission Factor (lb/ton)	$PM_{2.5}$ Emission Factor (lb/ton)	Basis
Material Receiving				
RHF Millings from Process to Front End Loader	4.79E-03	2.27E-03	3.43E-04	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
Screening Operations				
Unscreened RHF Milling Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader
Front End Loader to Surge Bin	4.79E-03	2.27E-03	3.43E-04	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
Surge Bin to Screening	1.40E-04	4.60E-05	1.30E-05	AP-42, Section 11.19.2, Table 11.19.2-2 for Conveyor Transfer Controlled (SCC 3-05-020-06)
Screening	2.20E-03	7.40E-04	5.00E-05	AP-42, Section 11.19.2, Table 11.19.2-2 for Screening Controlled (SCC 3-05-020-02, 03).
Screening to Temporary Storage	1.40E-04	4.60E-05	1.30E-05	AP-42, Section 11.19.2, Table 11.19.2-2 for Conveyor Transfer Controlled (SCC 3-05-020-06)
Temporary Storage to Front End Loader				Negligible emissions from gathering material from the ground with front end loader
RHF Midsize and Oversize Piles				
RHF Midsize and Oversize Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Customer Trucks	4.79E-03	2.27E-03	3.43E-04	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
RHF Byproduct and Blending Piles				
RHF Byproduct/Blending Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Stacker	4.79E-03	2.27E-03	3.43E-04	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
RHF Byproduct/Blending Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Hopper (existing process)	4.79E-03	2.27E-03	3.43E-04	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4

Process Step	PM Emission Rate (lb/hr)	PM_{10} Emission Rate (lb/hr)	$PM_{2.5}$ Emission Rate (lb/hr)	PM Emission Rate (ppd)	PM_{10} Emission Rate (ppd)	$PM_{2.5}$ Emission Rate (ppd)	PM Emission Rate (tpy)	PM_{10} Emission Rate (tpy)	$PM_{2.5}$ Emission Rate (tpy)
Material Receiving									
RHF Millings from Process to Front End Loader	0.48	0.23	0.03	11.50	5.44	0.82	0.08	0.04	0.01
Screening Operations									
Unscreened RHF Milling Piles to Front End Loader									
Front End Loader to Surge Bin	0.48	0.23	0.03	11.50	5.44	0.82	0.08	0.04	0.01
Surge Bin to Screening	0.01	0.00	0.00	0.34	0.11	0.03	0.00	0.00	0.00
Screening	0.22	0.07	0.01	5.28	1.78	0.12	0.04	0.01	0.00
Screening to Temporary Storage	0.01	0.00	0.00	0.34	0.11	0.03	0.00	0.00	0.00
Temporary Storage to Front End Loader									
RHF Midsize and Oversize Piles									
RHF Midsize and Oversize Piles to Front End Loader									
Front End Loader to Customer Trucks	0.48	0.23	0.03	11.50	5.44	0.82	0.02	0.01	0.00
RHF Byproduct and Blending Piles									
RHF Byproduct/Blending Piles to Front End Loader									
Front End Loader to Stacker	0.48	0.23	0.03	11.50	5.44	0.82	0.12	0.06	0.01
RHF Byproduct/Blending Piles to Front End Loader									
Front End Loader to Hopper (existing process)	0.48	0.23	0.03	11.50	5.44	0.82	0.12	0.06	0.01
Total Screening PTE	**2.64**	**1.22**	**0.18**	**63.46**	**29.20**	**4.30**	**0.45**	**0.21**	**0.03**

Methodology
Emission Rate (lb/hr) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr)
Emission Rate (ppd) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr) * 24 (hr/day)
Emission Rate (tpy) = Emission factor (lb/ton) * Annual Process Rate (tpy) / 2000 (lb/ton)

Screening Process Uncontrolled PTE

Material	PM Particle Size Multiplier (k)	PM_{10} Particle Size Multiplier (k)	$PM_{2.5}$ Particle Size Multiplier (k)	Wind Speed (U) (mph)	Moisture Content (M) (%)	Basis
All RHF Screening, Blending	0.74	0.35	0.053	8.6	0.92	AP-42, Section 13.2.4. M is the average moisture content for slag. U is the annual average wind speed from 2011 Climatological Data for Fort Wayne Intl Airport. (http://www7.ncdc.noaa.gov/IPS/lcd/lcd.html)

Process Step	Hourly Process Rate (tph)	Annual Process Rate (tpy)	Material
Material Receiving			
RHF Millings from Process to Front End Loader	100	32,465	RHF Millings
Screening Operations			
Unscreened RHF Milling Piles to Front End Loade	100	32,465	RHF Millings
Front End Loader to Surge Bin	100	32,465	RHF Millings
Surge Bin to Screening	100	32,465	RHF Millings
Screening	100	32,465	RHF Millings
Screening to Temporary Storage	100	32,465	RHF Byproduct, Medium and Oversized Screenings
Temporary Storage to Front End Loader	100	32,465	RHF Byproduct, Medium and Oversized Screenings
RHF Midsize and Oversize Piles			
RHF Midsize and Oversize Piles to Front End Loader	100	7,956	RHF Medium and Oversized Screenings
Front End Loader to Customer Trucks	100	7,956	RHF Medium and Oversized Screenings
RHF Byproduct and Blending Piles			
RHF Byproduct/Blending Piles to Front End Loader	100	48,530	RHF Byproduct Screenings, Blending Raw Materials
Front End Loader to Stacker	100	48,530	RHF Byproduct Screenings, Blending Raw Materials
RHF Byproduct/Blending Piles to Front End Loader	100	48,530	RHF Byproduct Screenings/Blended
Front End Loader to Hopper (existing process)	100	48,530	RHF Byproduct Screenings/Blended

Process Step	PM Emission Factor (lb/ton)	PM_{10} Emission Factor (lb/ton)	$PM_{2.5}$ Emission Factor (lb/ton)	Basis
Material Receiving				
RHF Millings from Process to Front End Loader	1.42E-02	6.72E-03	1.02E-03	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
Screening Operations				
Unscreened RHF Milling Piles to Front End Loade				Negligible emissions from gathering material from the ground with front end loader
Front End Loader to Surge Bin	1.42E-02	6.72E-03	1.02E-03	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
Surge Bin to Screening	3.00E-03	1.10E-03	3.11E-04	AP-42, Section 11.19.2, Table 11.19.2-2 for Conveyor Transfer (SCC 3-05-020-06)
Screening	2.50E-02	8.70E-03	5.88E-04	AP-42, Section 11.19.2, Table 11.19.2-2 for Screening (SCC 3-05-020-02, 03)
Screening to Temporary Storage	3.00E-03	1.10E-03	3.11E-04	AP-42, Section 11.19.2, Table 11.19.2-2 for Conveyor Transfer (SCC 3-05-020-06)
Temporary Storage to Front End Loader				Negligible emissions from gathering material from the ground with front end loader
RHF Midsize and Oversize Piles				
RHF Midsize and Oversize Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Customer Trucks	1.42E-02	6.72E-03	1.02E-03	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
RHF Byproduct and Blending Piles				
RHF Byproduct/Blending Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Stacker	1.42E-02	6.72E-03	1.02E-03	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4
RHF Byproduct/Blending Piles to Front End Loader				Negligible emissions from gathering material from the ground with front end loader.
Front End Loader to Hopper (existing process)	1.42E-02	6.72E-03	1.02E-03	AP-42, Section 13.2.4, Equation 1: Emission Factor (lb/ton) = k(0.0032)* (U/5)^1.3 / (M/2)^1.4

Notes

AP-42 Section 11.19.2 EF not available for PM2.5, so PM2.5 estimated using the PM10 EF and the ratio of the PM2.5/PM10 EF for controlled operations

Process Step	PM Emission Rate (lb/hr)	PM_{10} Emission Rate (lb/hr)	$PM_{2.5}$ Emission Rate (lb/hr)	PM Emission Rate (ppd)	PM_{10} Emission Rate (ppd)	$PM_{2.5}$ Emission Rate (ppd)	PM Emission Rate (tpy)	PM_{10} Emission Rate (tpy)	$PM_{2.5}$ Emission Rate (tpy)
Material Receiving									
RHF Millings from Process to Front End Loader	1.42	0.67	0.10	34.11	16.13	2.44	0.23	0.11	0.02
Screening Operations									
Unscreened RHF Milling Piles to Front End Loade									
Front End Loader to Surge Bin	1.42	0.67	0.10	34.11	16.13	2.44	0.23	0.11	0.02
Surge Bin to Screening	0.30	0.11	0.03	7.20	2.64	0.75	0.05	0.02	0.01
Screening	2.50	0.87	0.06	60.00	20.88	1.41	0.41	0.14	0.01
Screening to Temporary Storage	0.30	0.11	0.03	7.20	2.64	0.75	0.05	0.02	0.01
Temporary Storage to Front End Loader									
RHF Midsize and Oversize Piles									
RHF Midsize and Oversize Piles to Front End Loader									
Front End Loader to Customer Trucks	1.42	0.67	0.10	34.11	16.13	2.44	0.06	0.03	0.00
RHF Byproduct and Blending Piles									
RHF Byproduct/Blending Piles to Front End Loader									
Front End Loader to Stacker	1.42	0.67	0.10	34.11	16.13	2.44	0.34	0.16	0.02
RHF Byproduct/Blending Piles to Front End Loader									
Front End Loader to Hopper (existing process)	1.42	0.67	0.10	34.11	16.13	2.44	0.34	0.16	0.02
Total Screening PTE	**10.21**	**4.45**	**0.63**	**244.96**	**106.83**	**15.12**	**1.71**	**0.75**	**0.11**

Methodology
Emission Rate (lb/hr) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr)
Emission Rate (ppd) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr) * 24 (hr/day)
Emission Rate (tpy) = Emission factor (lb/ton) * Annual Process Rate (tpy) / 2000 (lb/ton)

Storage Pile Loading and Erosion Controlled PTE

Quantity	Storage Piles	Hourly Process Rate (tph)	Annual Process Rate (tpy)
1	RHF Milling Piles	100	32,465
1	RHF Byproduct/Blending Piles	100	48,530
1	RHF Midsize, Oversize, and Temporary Piles	100	7,956

Quantity	Storage Piles - Loading	PM Emission Factor (lb/ton)	PM_{10} Emission Factor (lb/ton)	$PM_{2.5}$ Emission Factor (lb/ton)
1	RHF Milling Piles	4.79E-03	2.26E-03	3.43E-04
1	RHF Byproduct/Blending Piles	4.79E-03	2.26E-03	3.43E-04
1	RHF Midsize, Oversize, and Temporary Piles	4.79E-03	2.26E-03	3.43E-04

Quantity	Storage Piles - Erosion	PM Emission Factor Daily (g/m^2)	PM_{10} Emission Factor Daily (g/m^2)	$PM_{2.5}$ Emission Factor Daily (g/m^2)	PM Emission Factor Annual (g/m^2)	PM_{10} Emission Factor Annual (g/m^2)	$PM_{2.5}$ Emission Factor Annual (g/m^2)
1	RHF Milling Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02
1	RHF Byproduct/Blending Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02
1	RHF Midsize, Oversize, and Temporary Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02

Quantity	Storage Piles	PM Emission Rate (lb/hr)	PM_{10} Emission Rate (lb/hr)	$PM_{2.5}$ Emission Rate (lb/hr)	PM Emission Rate (ppd)	PM_{10} Emission Rate (ppd)	$PM_{2.5}$ Emission Rate (ppd)	PM Emission Rate (tpy)	PM_{10} Emission Rate (tpy)	$PM_{2.5}$ Emission Rate (tpy)
	Storage Piles - Loading									
1	RHF Milling Piles	4.79E-01	2.26E-01	3.43E-02	1.15E+01	5.43E+00	8.23E-01	7.77E-02	3.67E-02	5.56E-03
1	RHF Byproduct/Blending Piles	9.57E-01	4.53E-01	6.86E-02	2.30E+01	1.09E+01	1.65E+00	2.32E-01	1.10E-01	1.66E-02
1	RHF Midsize, Oversize, and Temporary Piles	4.79E-01	2.26E-01	3.43E-02	1.15E+01	5.43E+00	8.23E-01	1.90E-02	9.01E-03	1.36E-03
	Storage Piles - Erosion									
1	RHF Milling Piles	2.72E+00	1.36E+00	2.04E-01	2.72E+00	1.36E+00	2.04E-01	1.36E-03	6.80E-04	1.02E-04
1	RHF Byproduct/Blending Piles	6.39E+00	3.20E+00	4.79E-01	6.39E+00	3.20E+00	4.79E-01	3.20E-03	1.60E-03	2.40E-04
1	RHF Midsize, Oversize, and Temporary Piles	9.30E-01	4.65E-01	6.98E-02	9.30E-01	4.65E-01	6.98E-02	4.65E-04	2.33E-04	3.49E-05
	Total Storage Pile Controlled PTE	**11.96**	**5.93**	**0.89**	**56.00**	**26.76**	**4.04**	**0.33**	**0.16**	**0.02**

Methodology

Storage Pile Loading

Emission Rate (lb/hr) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr)

Emission Rate (ppd) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr) * 24 (hr/day)

Emission Rate (tpy) = Emission Factor (lb/ton) *Annual Process Rate (tpy) / 2000 (lb/ton)

Storage Pile Erosion

Emission Rate (lb/hr) = Daily/Hourly Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb)

Emission Rate (lb/day) = Daily/Hourly Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb)

Emission Rate (tpy) = Annual Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb) / 2000 (lb/ton) * 365 (day/yr)

For the RHF Byproduct/Blending Piles, a factor of "2" is added, as material is assumed to be loaded twice, first to initial storage and second to blend the material

Storage Pile Loading and Erosion Uncontrolled PTE

Quantity	Storage Piles	Hourly Process Rate (tph)	Annual Process Rate (tpy)
1	RHF Milling Piles	100	32,465
1	RHF Byproduct/Blending Piles	100	48,530
1	RHF Midsize, Oversize, and Temporary Piles	100	7,956

Quantity	Storage Piles - Loading	PM Emission Factor (lb/ton)	PM_{10} Emission Factor (lb/ton)	$PM_{2.5}$ Emission Factor (lb/ton)
1	RHF Milling Piles	1.42E-02	6.71E-03	1.02E-03
1	RHF Byproduct/Blending Piles	1.42E-02	6.71E-03	1.02E-03
1	RHF Midsize, Oversize, and Temporary Piles	1.42E-02	6.71E-03	1.02E-03

Quantity	Storage Piles - Erosion	PM Emission Factor Daily (g/m^2)	PM_{10} Emission Factor Daily (g/m^2)	$PM_{2.5}$ Emission Factor Daily (g/m^2)	PM Emission Factor Annual (g/m^2)	PM_{10} Emission Factor Annual (g/m^2)	$PM_{2.5}$ Emission Factor Annual (g/m^2)
1	RHF Milling Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02
1	RHF Byproduct/Blending Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02
1	RHF Midsize, Oversize, and Temporary Piles	5.69E-01	2.84E-01	4.27E-02	5.69E-01	2.84E-01	4.27E-02

Quantity	Storage Piles	PM Emission Rate (lb/hr)	PM_{10} Emission Rate (lb/hr)	$PM_{2.5}$ Emission Rate (lb/hr)	PM Emission Rate (ppd)	PM_{10} Emission Rate (ppd)	$PM_{2.5}$ Emission Rate (ppd)	PM Emission Rate (tpy)	PM_{10} Emission Rate (tpy)	$PM_{2.5}$ Emission Rate (tpy)
	Storage Piles - Loading									
1	RHF Milling Piles	1.42E+00	6.71E-01	1.02E-01	3.41E+01	1.61E+01	2.44E+00	2.30E-01	1.09E-01	1.65E-02
1	RHF Byproduct/Blending Piles	2.84E+00	1.34E+00	2.03E-01	6.81E+01	3.22E+01	4.88E+00	6.89E-01	3.26E-01	4.93E-02
1	RHF Midsize, Oversize, and Temporary Piles	1.42E+00	6.71E-01	1.02E-01	3.41E+01	1.61E+01	2.44E+00	5.65E-02	2.67E-02	4.04E-03
	Storage Piles - Erosion									
1	RHF Milling Piles	2.72E+00	1.36E+00	2.04E-01	2.72E+00	1.36E+00	2.04E-01	1.36E-03	6.80E-04	1.02E-04
1	RHF Byproduct/Blending Piles	6.39E+00	3.20E+00	4.79E-01	6.39E+00	3.20E+00	4.79E-01	3.20E-03	1.60E-03	2.40E-04
1	RHF Midsize, Oversize, and Temporary Piles	9.30E-01	4.65E-01	6.98E-02	9.30E-01	4.65E-01	6.98E-02	4.65E-04	2.33E-04	3.49E-05
	Total Storage Pile Uncontrolled PTE	**15.72**	**7.71**	**1.16**	**146.32**	**69.48**	**10.51**	**0.98**	**0.46**	**0.07**

Methodology

Storage Pile Loading

Emission Rate (lb/hr) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr)

Emission Rate (ppd) = Emission Factor (lb/ton) * Hourly Process Rate (ton/hr) * 24 (hr/day)

Emission Rate (tpy) = Emission Factor (lb/ton) *Annual Process Rate (tpy) / 2000 (lb/ton)

Storage Pile Erosion

Emission Rate (lb/hr) = Daily/Hourly Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb)

Emission Rate (lb/day) = Daily/Hourly Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb)

Emission Rate (tpy) = Annual Emission Factor (g/m^2) * Maximum Pile Area (m^2) / 453.59237 (g/lb) / 2000 (lb/ton) * 365 (day/yr)

For the RHF Byproduct/Blending Piles, a factor of "2" is added, as material is assumed to be loaded twice, first to initial storage and second to blend the material.

Paved Roads PTE and Actual Emissions Increase

> For purposes of evaluating this project, emissions from paved road traffic for transporting RHF Milling and RHF Byproduct/Blended material to and from the storage area are assumed to be less than emissions from paved road traffic transporting an equivalent amount of RHF Milling and raw material to and from the facility entrance, a much longer distance. As the RHF Midsize and Oversize materials and blending materials would require transport to and from the facility entrance regardless, it is assumed that there is no increase in paved road emissions from this traffic due to this project.

Unpaved Roads PTE and Actual Emissions Increase

> AP-42 Chapter 13.2.2 (11/06)

Unmitigated Emission Factor (lb/mile) = [k * (s/12)^a * (W/3)^b] (AP-42, Chapter 13.2.2, Equation 1a)
where k = particle size multiplier (lb/VMT)
s = surface material silt content (%)
W = average weight (tons) of the vehicles traveling on the road
a = constant
b = constant

Uncontrolled/Unmitigated Emissions (tons/yr) = Unmitigated Emission Factor (lb/mile) * miles/yr / 2,000 (lb/ton)
Controlled/Unmitigated Emissions (tons/yr) = Uncontrolled/Unmitigated Emissions (tons/yr) * (1 - Control Efficiency (%))
Controlled/Unmitigated Emissions (lb/hr) = Controlled/Unmitigated Emissions (tons/yr) * 2,000 (lb/ton) / 8,760 (hr/yr)

Constantsa								
PM	PM_{10}	$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$
k (lb/VMT)	k (lb/VMT)	k (lb/VMT)	a	a	a	b	b	b
4.9	1.5	0.15	0.7	0.9	0.9	0.45	0.45	0.45

Road Segment	Road Type	W (tons)[b]	s[c]	Segment Lengthd (miles)	Trips/Day	Miles/Year	Unmitigated PM Emission Factor (lb/mile)	Unmitigated PM_{10} Emission Factor (lb/mile)	Unmitigated $PM_{2.5}$ Emission Factor (lb/mile)	Control Efficiencye (%)	Uncontrolled/ Unmitigated PM Emissions (tons/yr)	Uncontrolled/ Unmitigated PM_{10} Emissions (tons/yr)	Uncontrolled/ Unmitigated $PM_{2.5}$ Emissions (tons/yr)	Controlled/ Unmitigated PM Emissions (tons/yr)	Controlled/ Unmitigated PM_{10} Emissions (tons/yr)	Controlled/ Unmitigated $PM_{2.5}$ Emissions (tons/yr)
FFF-YYY	Unpaved	40.70	6.0	0.07	56	2,715	9.75	2.60	0.26	80	13.24	3.53	0.35	2.65	0.71	0.07
YYY-ZZZ	Unpaved	42.06	6.0	0.05	39	1,278	9.90	2.64	0.26	80	6.32	1.69	0.17	1.26	0.34	0.03
										Total	**19.56**	**5.21**	**0.52**	**3.91**	**1.04**	**0.10**

[a] AP-42 Section 13.2.2, Table 13.2.2-2
[b] Vehicle weights for Employee Vehicles obtained from January 16, 1997 PSD Permit Application. Vehicle weight for all trucks based on based on 1/2/12 to 3/31/12 Butler truck shipment scale data and IDI-specific truck weight data..
[c] AP-42 Section 13.2.2, Table 13.2.2-1, Mean percent silt content for iron and steel production. Silt loading value is for integrated steel mills and is used for Iron Dynamics roadways.
[d] Segment lengths obtained from Butler facility map.
[e] Control efficiency required by TVOP No. T033-30828-00047; Condition D.12.1

Methodology:

Miles/Year = Segment Length (miles) x Trips per Day x 2 One-way Trips x 365 Days per year

Throughput Data

Description	Value		Basis
Maximum Hourly Throughput	100	tons/hr	Maximum Hourly Throughput for screening operation. This value is applied to all other operations to calculate hourly emissions.
RHF Millings Throughput	32,465	tons/yr	2012 actual throughput with a 20 % safety factor to calculate potential to emit.
RHF Byproduct Throughput	24,265	tons/yr	2012 actual throughput with a 20 % safety factor to calculate potential to emit.
Blending Material Throughput	24,265	tons/yr	Assume 50/50 blend of RHF Byproduct and blending material
RHF Midsize, Oversize, and Temporary Throughput	7,956	tons/yr	2012 actual throughput with a 20 % safety factor to calculate potential to emit.

Storage Pile Data

Facility ID	Storage Pile Contents[1]	Maximum Pile Area[2] (ft^2)	Pile Shape[3]	Max Hourly Throughput (tons/hr)	Annual Throughput (tons/yr)	Maximum Pile Height[4] (m)	Maximum Pile Area (m^2)	Maximum Pile Area (m^2)	Moisture Content[5] (%)	(%)
SP 1	RHF Milling Piles	41,250	Flattop	100	32,465	3.05	3,832	2,170	2.0	0.92
SP 2	RHF Byproduct/Blending Piles	95,850	Flattop	100	48,530	9.14	8,905	5,098	2.0	0.92
SP 3	RHF Midsize, Oversize, and Temporary Piles	14,000	Flattop	100	7,956	3.05	1,301	742	2.0	0.92

[1] RHF Milling Piles include material from various sources that is being stored prior to the IDI screening operation. The RHF Byproduct/Blending Piles include material that has been screened and blended with other materials, and blending materials (including silica slag additive). The RHF Midsize and Oversize Piles include medium and large sized screened material.

[2] Maximum pile areas determined from Google Earth.

[3] RHF Byproduct/Blending Piles are a group of conical and flattop (silica pile) piles which are assumed to be affected collectively as a flattop pile. RHF Milling, Midsize, and Oversize Piles are loaded with a front-end loader and are therefore assumed to be flattop piles.

[4] RHF Milling and RHF Byproduct/Blending Pile heights from facility personnel. Assume RHF Midsize and Oversize Pile height equivalent to RHF Milling Pile height due to loading of both with a front-end loader.

[5] For moisture content, assume maximum for slag from AP-42 Table 13.2.4-1 for sources controlled by water spray.

[6] For moisture content, assume mean value of slag per AP 42, Section 13.2.4 as inherent moisture content of material for uncontrolled sources.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Barry Smith
Steel Dynamics, Inc. - Iron Dynamics Division
4500 County Road 59
Butler, IN 46721

DATE: August 7, 2013

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

SUBJECT: Final Decision
Minor Source Modification to Part 70
033-33415-00076

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:
Conrad Fisher, Responsible Party
David Dempsey, Trinity Consultants
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 6/13/2013

Mail Code 61-53

IDEM Staff	PWAY 8/7/2013 Steel Dynamics - Iron Dynamics Division 033-33415-00076 (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		Barry Smith Steel Dynamics - Iron Dynamics Division 4500 CR 59 Butler IN 46721 (Source CAATS)									
2		Conrad Fisher VP / GM - Iron Dynamics Div Steel Dynamics - Iron Dynamics Division 4500 CR 59 Butler IN 46721 *(RO CAATS)*									
3		Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 *(Affected Party)*									
4		DeKalb County Commissioners 100 South Main Street Auburn IN 46706 *(Local Official)*									
5		Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 *(Affected Party)*									
6		Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 *(Affected Party)*									
7		Dekalb County Health Department 220 E 7th St #110 Auburn IN 46706 *(Health Department)*									
8		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)*									
9		Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 *(Affected Party)*									
10		Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 *(Affected Party)*									
11		Butler City Council and Mayors Office 215 S. Broadway St. Butler IN 46721 *(Local Official)*									
12		Mr. David Dempsey Trinity Consultants 7330 Woodland Drive, Suite 225 Indianapolis IN 46278 *(Consultant)*									
13		Doug McGregor Steel Dynamics, Inc. 4500 CR 59 Butler IN 46721 (Affected Party)									
14											
15											

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