INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: February 9, 2007

RE: Steel Dynamics, Inc. / 033-23084-00076

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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

Enclosures
FNTV-PMOD.doc 03/23/06

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February 9, 2007

Mr. Barry Smith
Environmental Engineer
Steel Dynamics, Inc. – Iron Dynamics Division
4500 Country Road 59
Butler, IN 46721

Re: 033-23084-00076
1st Significant Permit Modification to
Part 70 Permit No.: T033-12614-00076

Dear Mr. Smith:

Steel Dynamics, Inc. – Iron Dynamics Division was issued a Part 70 operating permit on October 4, 2006 for stationary Direct Reduced Iron (DRI) manufacturing facility located at 4500 County Road 59, Butler, IN 46721. On October 13, 2006, Steel Dynamics, Inc. – Iron Dynamics Division was issued PSD SSM 033-22673-00076 to permit the construction of a SAF Building Dust Control System. Pursuant to 326 IAC 2-7-12, a significant permit modification to T033-12614-00076 is hereby approved as described in the attached Technical Support Document.

Attached is the revised Part 70 permit that incorporates the applicable requirements of PSD SSM 033-22673-00076. All other conditions of T033-12614-00076 shall remain unchanged and in effect.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Bob Sidner, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (703) 633-1701 to speak directly to Mr. Sidner. Questions may also be directed to Matt Stuckey at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, and ask for Matt Stuckey or extension 3-0203, or reach him at e-mail address mstuckey@idem.in.gov.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

ERG/BS

Attachments:

cc: File - Orange County
U.S. EPA, Region V
Dekalb County Health Department
Air Compliance Section Inspector – Dick Sekula
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Jeffrey Stoakes

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PART 70 OPERATING PERMIT
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 operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.
The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.
This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T033-12614-00076	
Issued by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: October 4, 2006 Expiration Date: October 4, 2011

First Significant Permit Modification: 033-23084-00076	Affected pages: 8, 11, 66-70
Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date:February 9, 2007 Expiration Date: October 4, 2011

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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.

Responsible Official:	Plant Manager or designee as defined in 326 IAC 2-7-1(34) (A)
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., 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. (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 calcium sulfate (formed during reaction of lime and SO_2). Emissions exhaust through Stack 40.

(b) Use of Electric Arc Furnace (EAF) baghouse dust and other iron bearing feedstock as a supplemental feed material for the RHF.

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 throughput of106 tons of liquid hot metal (pig iron) per hour. Emissions are exhausted through a hole in the stationary lid, with particulate controlled by a wet venturi scrubber and carbon monoxide (CO) controlled by a thermal oxidizer exhausting through Stack 58.

(2) One (1) desulfurization station, constructed in 1998, with a nominal capacity of 106 tons per hour, uses lime to remove sulfur in the pig iron produced at the SAF. Emissions from the desulfurization station, DRI bins, slag pots and tapping associated with the SAF are captured by canopy hoods and particulate matter is controlled by the desulfurization baghouse exhausting through Stack 58.

(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 106 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 106 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 106 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.

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 Branch, Office of Air Quality
100 North Senate Avenue
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 Branch, Office of Air Quality
100 North Senate Avenue,
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 Branch, Office of Air Quality
100 North Senate Avenue
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.

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 Data Section, Office of Air Quality
100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 a fugitive dust plan submitted for approval by IDEM no later than ninety (90) days after issuance of this permit for approval by IDEM.

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 Data Section, Office of Air Quality
100 North Senate Avenue
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 Branch, Office of Air Quality
100 North Senate Avenue
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,
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 that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1 (z) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1 (mm)), the Permittee shall comply with following:

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

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

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

C.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 Data Section, Office of Air Quality
100 North Senate Avenue
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 (c) 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 (c)(2) and (3) 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
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
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 in1998 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 calcium sulfate (formed during reaction of lime and SO_2). Emissions exhaust through Stack 40.

(b) Use of Electric Arc Furnace (EAF) baghouse dust and other iron bearing feedstock as a supplemental feed material for the RHF.

(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 an air flow rate design of 310,000 dscfm (353,000 acfm) and 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 in accordance with condition D.1.17, 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) pursuant to 326 IAC 5-1-4.

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 thermal oxidizer.

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]

(a) Within thirty (30) months from the date of the latest compliance demonstration stack test and in order to demonstrate compliance with Condition D.1.1and D.1.4, the Permittee shall perform PM/PM_{10} and VOC testing on the RHF, utilizing methods as approved by the Commissioner. These test shall be repeated at least once every five (5) years. PM_{10} includes filterable and condensable components.

(b) Within thirty (30) months from the date of the latest compliance demonstration stack test and in order to demonstrate compliance with Condition D.1.8, the Permittee shall analyze the EAF baghouse dust for the hazardous components. The Permittee shall calculate the hourly HAP emissions assuming 100% vaporization of the hazardous components identified previously for the Rotary Hearth Furnace process baghouse Stack 40, using the highest throughput rate in tons per hour of EAF baghouse dust achieved during this period. This mass balance computation shall be converted to annual emissions assuming 8760 hours of operation in a year, and used to establish that the single HAP emissions are less than 10 tons per year and the combination of HAPs emissions are less than 25 tons per year pursuant to 326 IAC 2-4.1-1. In the event that the HAP emissions exceed the threshold stated earlier, the Permittee shall inform the IDEM, OAQ about the same, and curtail the operation of the RHF in a manner, not to exceed the thresholds specified in this condition.

All testing (except testing of the EAF baghouse dust, which shall be tested in accordance with SW-846 or other approved methods) 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 SSM033-15955-00076, issued on December 18, 2002, A-033-17732-00076, issued September 17, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements) and in order to comply with conditions D.1.1 and D.1.8, 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.

D.1.13 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 (Control Technology Review: Requirements) and in order to comply with condition D.1.3, the lime injection or wet scrubber unit for sulfur dioxide control shall be in operation and/or use of EAF dust as supplemental feedstock in the RHF to control emissions from the rotary hearth furnace process baghouse Stack 40 at all times the rotary hearth furnace is in operation, except as provided in D.1.9(c)(2).

D.1.14 Carbon Monoxide (CO) and Volatile Organic Compounds (VOC) - 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 (Control Technology Review: Requirements and in order to comply with conditions, D1.4, and D.1.5, the afterburner for control of carbon monoxide and volatile organic compounds shall be in operation and control emissions from the rotary hearth furnace at all times the rotary hearth furnace is in operation except as provided in D.1.9(c)(2).

D.1.15 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 (Control Technology Review: Requirements) and in order to comply with condition D.1.7, except during periods of startup or shutdown, the selective non-catalytic reduction unit for NOx 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.1.16 Continuous Emission Rate Monitoring [326 IAC 3-5]

(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.1.17 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.1.18 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.1.19 Record Keeping Requirements

(a) To document compliance with Condition D.1.16 and D.1.17(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.1.16(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.1.17(a) (if applicable), the Permittee shall maintain records of the once per day opacity readings of the rotary hearth furnace process baghouse Stack 40.

(d) To document compliance with Condition D.1.18 (if applicable), the Permittee shall maintain records of the once per day pressure drop during normal operation.

(e) To document compliance with condition D1.17(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.1.17(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.1.20 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 baghosue Stack 77, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and one half (2½) 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.

(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.

(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 throughput of one hundred six (106) tons of liquid hot metal (pig iron) per hour. Emissions are exhausted through a hole in the stationary lid, with particulate controlled by a wet venturi scrubber and carbon monoxide (CO) controlled by a thermal oxidizer exhausting through Stack 58.

(2) One (1) desulfurization station, constructed in 1998 with a nominal capacity of 106 tons per hour, uses lime to remove sulfur in the pig iron produced at the SAF. Emissions from the desulfurization station, DRI bins, slag pots and tapping associated with the SAF are captured by canopy hoods and particulate matter is controlled by the desulfurization baghouse exhausting through Stack 58.

(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 106 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 106 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 106 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). At a maximum air flow rate of 300,000 dry standard cubic feet per minute (dscfm), this limit is equivalent to 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 desulfurization station, 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 transfer point shall not exceed 51.9 pounds per hour when operating at a nominal process weight rate of 106 tons per hour.

Interpolation and extrapolation 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:

$E = 55.0\ P^{0.11} - 40$ 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 and 326 IAC 2-2-3, the sulfur dioxide emissions from the submerged arc furnace Stack 58 shall not exceed 0.084 pounds per ton. At a maximum process throughput of 106 tons per hour, this limit is equivalent to 1.6 pounds of SO_2 per hour.

D.3.5 Volatile Organic Compounds (VOC) - 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 volatile organic compound emissions from the submerged arc furnace Stack 58 shall not exceed 0.035 pounds per ton. At a maximum process throughput of 106 tons per hour, this limit is equivalent to 3.7 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 and 326 IAC 2-2-3, the carbon monoxide emissions from the submerged arc furnace Stack 58 shall not exceed 1.26 pounds per ton. At a maximum process throughput of 106 tons per hour, this limit is equivalent to 133.5 pounds of CO per hour.

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

Pursuant to CP033-9187-00043, issued March 24, 1998 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 thermal oxidizer.

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. At a maximum process throughput of 106 tons per hour, this limit is equivalent to 12.4 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, desulfurization station 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]

Within 60 days from start up of the Submerged Arc Furnace and in order to comply with conditions D.3.1, D.3.4, D.3.5, D.3.6 and D.3.8 the Permittee shall perform PM/PM_{10}, SO_2, VOC, CO and NOx 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. PM10 includes both filterable and condensable components. 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 SSM033-15955-00043, 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 desulfurization station, DRI bins, slag pots and tapping associated with the SAF at all times the desulfurization station, 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 Carbon Monoxide (CO) Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-9187-00043, issued on March 24, 1998, and in order to comply with D.3.6 and D.3.7, the thermal oxidizer for carbon monoxide control shall be in operation and control CO emissions from the Submerged Arc Furnace at all times the Submerged Arc Furnace is in operation.

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

D.3.14 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 either:

(a) Calibrate, operate and maintain a continuous monitoring system for measuring opacity at the exhaust from the SAF Stack 58 in accordance with 326 IAC 3-5 and 40 CFR 60,

Appendix B. The Permittee shall record the output of the system and provide record keeping and reporting pursuant to 326 IAC 3-5;

or

(b) The Permittee shall do the following:

(1) 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

(2) 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.3.15 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a three (3) hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C.16 – Response to Excursions or Exceedances whenever the (3) hour average temperature of the thermal oxidizer is below 1650°F. A three (3) hour average temperature that is below 1650°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.

(b) The Permittee shall determine the hourly average temperature from the most recent valid stack test that demonstrates compliance in condition D.3.6.

(c) On and after the date the approved Stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C.16 - Response to Excursions or Exceedances whenever the three (3) hour average temperature of the thermal oxidizer is below the three (3) hour average temperature as observed during the compliant Stack test. A three (3) hour average temperature that is below the three (3) hour average temperature as observed during the compliant Stack test 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 of this permit.

D.3.16 Parametric Monitoring

(a) If the Permittee elects to do continuous emission monitoring under D.3.14(b), then, the Permittee shall record the pressure drop and flow rate of 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 40 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 record the pressure drop across the baghouse used in conjunction with the desulfurization station, DRI bins, slag pots and tapping associated with the SAF at least once per day when the desulfurization station, DRI bins, slag pots and tapping associated with the SAF are 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.

(c) The Permittee shall record the pressure drop across the baghouse used in conjunction with the RHF discharge chute at least once per day, 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.

(d) The instruments used for determining the pressure, flow rate, fan amperage and duct velocity 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.3.17 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.3.18 Record Keeping Requirements

(a) To document compliance with Condition D.3.14(a), (if selected), the Permittee shall maintain records of the readings of the continuous opacity monitoring system of the Submerged Arc Furnace (SAF) Stack 58.

(b) To document compliance with Condition D.3.14(b)(1), (if selected), the Permittee shall maintain the records of the observed opacity readings of the SAF Stack 58 at least once per day.

(c) To document compliance with D.3.14(b)(2)(A) and (B), (if selected), the Permittee shall maintain records of the SAF continuous electronic recording of the pressure differential through the venturi constriction and water supply pressure of the SAF scrubber.

(d) To document compliance with Condition D.3.15, the Permittee shall maintain records of the thermal oxidizer temperature on a continuous basis.

(e) To document compliance with Condition D.3.16(a), the Permittee shall maintain records of the pressure drop and flow rate of the SAF scrubber, at least once per day.

(f) To document compliance with Condition D.3.16(b), the Permittee shall maintain records of the pressure drop of the SAF desulfurization station baghouse at least once per day.

(g) To document compliance with Condition D.3.16(c), the Permittee shall maintain records of the pressure drop of the RHF discharge chute baghouse at least once per day.

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

D.3.19 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 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 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 units and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B.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.

(b) To document compliance with Condition D.4.6, the Permittee shall maintain records of the once per day pressure drop during normal operation.

(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 SSM033-12992 -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.

(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.

(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.

(b) To document compliance with Condition D.7.6 the Permittee shall maintain records of the once per day pressure drop during normal operation.

(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.

(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)]: Material Storage and Handling (continued)

(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 ~~is~~ 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.

(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.

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.

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

(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 DATA SECTION
100 North Senate Avenue
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 BRANCH
100 North Senate Avenue
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 DATA SECTION
100 North Senate Avenue
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.
THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation::
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document
for a
Significant Permit Modification to a Part 70 Permit

Source Background and Description

Source Name:	Steel Dynamics, Inc. – Iron Dynamics Division
Source Location:	4500 County Road 59, Butler, Indiana 46721
County:	Dekalb
SIC Code:	3312
Operation Permit No.:	T033-12614-00076
Operation Permit Issuance Date:	October 4, 2006
Significant Permit Modification No.:	033-23084-00076
Permit Reviewer:	ERG/BS

On November 15, 2006, the Office of Air Quality (OAQ) had a notice published in the Auburn Evening News of Butler, Indiana, stating that Steel Dynamics, Inc. – Iron Dynamics Division ("SDI") had applied for a Significant Permit Modification to a Part 70 Permit relating to the operation of a SAF Building Dust Control System. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 4, 2006, SDI submitted comments on the proposed document. The following is a summary of the comments and responses to all comments. Added text is shown as bold and deleted text is shown as strikeout. When conditions are added or deleted, the other conditions are renumbered accordingly, and the Table of Contents modified to reflect these changes.

General Comment:

The original Title V Permit (T033-12614-00076) is being modified by SPM 033-23084-00076 to incorporate the new SAF Building Dust Control System baghouse that was approved by Significant Source Modification (SSM) 033-22673-00076, issued on October 13, 2006. SDI submitted comments on the original Title V and SSM permits, and has appealed several conditions of each.

Although appeal resolution is pending, SDI incorporates by reference all issues under appeal for both the above permits. Again, through incorporation by reference, we are commenting once again on all conditions in the above permits for which IDEM did not make the changes suggested by SDI under previous public comments.

We also offer the following new comments:

Comment 1:

Condition B.13(a) (Prior Permits Superseded) states “All terms and conditions of permits established prior to T033-12614-00076…” The SAF Building Dust Control System permit (SSM 033-22673-00076) is a construction permit that incorporates operating conditions. This construction/operation permit was issued after the Part 70 permit. Therefore the operating

conditions in the SSM permit are still valid and will need to reflect any changes brought about under the Part 70 permit.

Response to Comment 1:

SSM 033-22673-00076 is a significant source modification that permits SDI to construct the SAF Building Dust Control System. SPM 033-23084-00076 is a significant permit modification that incorporates the requirements of the SSM into the existing Part 70 permit. The operating conditions from the SSM are identical to those in this SPM. As a result, Condition B.13 accurately refers to the terms and conditions from permits that were established prior to the issuance of the Part 70 permit.

No changes were made to the permit as a result of this comment.

Comment 2:

Condition B.10(a) (Preventive Maintenance Plan) specifically identifies that control devices are to have Preventive Maintenance Plans (“PMP”) as directed in Section D of the permit. PMPs for processes are not listed in Sec. B.10(a). However, Section D refers to Condition B.10(a) for preparing PMPs for processes. SDI objects to Section D conditions that require preparation of a PMP for processes. Proper operation of the process has virtually no effect on proper operation of the control device.

Response to Comment 2:

The Preventive Maintenance Plan requirement must be included in every applicable Title V permit pursuant to 326 IAC 2-7-5(13). This rule refers back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

(1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),

(2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and

(3) The identification and quantification of the replacement parts for the facility which the Permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. 326 IAC 1-6-3(b) provides that "...as deemed necessary by the commissioner, any person operating a facility shall comply with the requirements of subsection (a) of this section."

In addition to preventive maintenance performed on the control devices, preventive maintenance should be performed on facilities and processes because lack of proper maintenance can result in increased emissions.

No changes were made to the permit as a result of this comment.

Comment 3:

Condition C.16(a) (Response to Excursions or Exceedances): SDI believes the intent is to bring the operation of the equipment back into control such that the excursion or exceedance is no

longer evident through instrumentation or observations. As such, SDI takes issue to the requirement to "minimize emissions" as it mandates emissions must be reduced well below allowed permit levels.

Response to Comment 3:

Condition C.16(a) states that:

> "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."

It requires the Permittee to promptly restore operation of an emission unit in order to minimize the duration and impact of an excursion or exceedance. At no point does the condition require or mandate that emissions be reduced well below allowable permit levels.

No changes were made to the permit as a result of this comment.

Comment 4:

Condition C.19(a) (General Record Keeping Requirements): SDI believes that submission of a historical records request by IDEM should not be subject to certification by a responsible official. We suggest the following as the last sentence: *"The documents submitted pursuant to this condition do not require the certification by the 'responsible official' as defined by 326 IAC 2-7-1(34)."*

Response to Comment 4:

IDEM does not agree that the proposed language should be included. Pursuant to 326 IAC 2-7-6(1), "Any document (including reports) required by a Part 70 permit shall contain a certification by a responsible official that meets the requirements of section 4(f) of this rule."

This condition applies to various records of monitoring data and supporting information. Records covered by this condition could be requested to determine compliance. As a result, the respective records need certification by the responsible official.

No changes were made to the permit as a result of this comment.

Comment 5:

Condition D.1.17(c)(3)(I) Opacity Monitoring on the Rotary Hearth Furnace: SDI believes the option should be granted for bag leak detectors to be installed on each compartment. This configuration identifies problem compartments faster than if the BLD is installed downstream of the baghouse. We offer the following language: *"The bag leak detector must be installed on each compartment or downstream of the baghouse."*

Response to Comment 5:

IDEM agrees that the presence of bag leak detectors on each compartment of a baghouse would improve baghouse problem detection. As a result, the following changes have been made to the permit:

D.1.17 Opacity Monitoring on the Rotary Hearth Furnace

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

…

(c) Bag Leak Detection System

…

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

…

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

Comment 6:

Condition D.3.14(b)(1): This condition requires the Method 9 observation of the SAF stack for three six-minute averages. SDI believes that two six-minute averages are sufficient to establish proper operation of the PM control devices. Two six-minute averages is also consistent with Method 9 observations for the RHF (Condition D.1.17(a)(2)) and RHF Additional Emission Points (Condition D.2.7(a)(2)).

Response to Comment 6:

As stated in Condition D.3.3, pursuant to Condition 27 of PSD CP 033-9187-00043, issued March 24, 1998, and 326 IAC 2-2-3 (BACT), 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. Conditon D.3.14 requires that the source install and operate a continuous opacity monitor ("COM") to monitor opacity from the SAF stack or conduct Method 9 observations of the SAF stack for three six-minute averages each day to ensure compliance with this BACT limit, and not simply to ensure proper operation of the baghouse. IDEM established this compliance monitoring requirement as part of this BACT determination and has no compelling justification to reconsider this requirement at this time. No changes were made to the permit as a result of this comment.

Comment 7:

All D Sections: SDI would like to see Bag Leak Detection systems (BLDS) allowed as a compliance option in Condition D.3.14. Such an option is provided in Conditions D.1.17 and D.2.7.

Response to Comment 7:

Condition D.3.14 requires the Permittee to calibrate, operate and maintain a continuous opacity monitoring system (COMS). Unlike Conditions D.1.17 and D.2.7, Condition D.3.14 is required pursuant to 326 IAC 3-5 and necessary to determine compliance with CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2-3 (BACT).

Also note that a COMS measures opacity while a BLDS measures particulate concentration. As a result, they are not interchangeable compliance monitoring options in a number of situations.

No changes were made to the permit as a result of this comment.

Comment 8:

Condition D.10.7(a) refers to condition "C.163". Delete the "3" as this should refer to Condition C.16.

Response to Comment 8:

The following changes were made as a result of this comment:

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.163~~ **C.16** (Response to Excursions or Exceedances**)**, shall be considered a deviation from this permit.

During the development of this significant permit modification, the source applied for an administrative amendment (033-23682-00076) to expedite the source name change specified in the *Proposed Changes* section of the Technical Support Document (TSD). As a result, the corresponding revisions listed in the TSD will be completed before this permit modification is issued. Because the OAQ prefers that the TSD reflect the permit that was on public notice, no changes were made to the TSD.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Steel Dynamics, Inc. – Iron Dynamics Division
Source Location:	4500 County Road 59, Butler, Indiana 46721
County:	Dekalb
SIC Code:	3312
Operation Permit No.:	T033-12614-00076
Operation Permit Issuance Date:	October 4, 2006
Significant Permit Modification No.:	033-23084-00076
Permit Reviewer:	ERG/BS

Existing Approvals

The source, Steel Dynamics, Inc. – Iron Dynamics Division, was issued a Part 70 Operating Permit (033-12614-00076) on October 4, 2006.

County Attainment Status

The source is located in Dekalb County.

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Attainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana. Effective October 25, 2006, 326 IAC 1-4-1 has been revised revoking the one hour ozone standard in Indiana.

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

(b) Dekalb County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for $PM_{2.5}$ emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for $PM_{2.5}$ emissions, it has directed states to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions.

(c) Dekalb County has been classified as attainment for all other criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for PSD, 326 IAC 2-2.

(d) Since this source is classified as an iron and steel mill plant, it is considered to be in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions* (tons/year)
PM	Greater than 100
PM10	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
CO	Greater than 100
NO_x	Greater than 100

* According to the TSD for T033-12614-00076, not yet issued.

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, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
A single HAP	Less than 10
Total HAPs	Less than 25

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, 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).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	133
PM10	133
SO_2	160
VOC	103
CO	518
NO_x	564
HAP's	Less than 10 for a single HAP and less than 25 tons for total HAPs

Description of Proposed Permit Modification

On October 4, 2006, the source was issued a Part 70 permit (T 033-12614-00076). On October 13, 2006, the source was issued a significant source modification (PSD SSM 033-22673-00076). The source modification permitted the construction of SAF Building Dust Control System. This permit modification incorporates the applicable requirements from 033-22673-00076 into the Part 70 permit and will allow the source to operate the SAF Building Dust Control System.

Enforcement Issues

There are no pending enforcement actions.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-7-12(d), this permit modification is being performed through a Part 70 Significant Permit Modification because the modification results in a significant change to existing Part 70 permit terms and conditions.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 033-12614-00076 (issued October 4, 2006) as a result of the requirements described in PSD SSM 033-22673-00076, issued October 13, 2006.

The source requested that its name be changed from "Iron Dynamics, Inc." to "Steel Dynamics, Inc. – Iron Dynamics Division". This change will reflect the source's actual name.

Condition A.1 has been revised to clarify that the Plant Manager or designee (pursuant to 326 IAC 2-7-1(34)(A)) is the Responsible Official.

Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(Title page)

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

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

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.

Responsible Official:	Plant Manager **or** designee as defined in 326 IAC 2-7-1(34) (A)
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., the primary operation, located at 4500 County Road 59, Butler, Indiana 46721; and

(b) ~~Iron Dynamics, Inc.~~ **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. (033-8068-00043) and ~~Iron Dynamics, Inc.~~ **Steel Dynamics, Inc. – Iron Dynamics Division** (033-12614-00076), solely for administrative purposes. For this permit, the Permittee is ~~Iron Dynamics, Inc.~~ **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)]

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

. . .

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)]

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

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

~~Iron Dynamics, Inc.~~ **Steel Dynamics, Inc. – Iron Dynamics Division** is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

SECTION D.10 FACILITY OPERATION CONDITIONS

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

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.)

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.163 (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.

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

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

SECTION D.~~10~~ 11 FACILITY OPERATION CONDITIONS

…

~~D.10.1~~ **D.11.1** Particulate (PM/PM_{10}) (Particulate Matter Emissions Limitations for Manufacturing Processes) [326 IAC 6-3-2]

. . .

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	~~Iron Dynamics, Inc.~~ **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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	~~Iron Dynamics, Inc.~~ **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.:	T-033-12614-00076

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

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

Conclusion and Recommendation

The operation of SAF Building Dust Control System (as permitted in PSD SSM 033-22673-00076, issued October 13, 2006) shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 033-23084-00076. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.