



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: December 29, 2006
RE: Mittal- Chief Excavation, Inc / 089-23267-05267
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 13-15-5-3, this permit 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 13-15-6-1(b) or IC 13-15-6-1(a) 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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 an initial Title V operating permit, permit renewal, 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 impracticable 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.



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Part 70 Operating Permit OFFICE OF AIR QUALITY

Chief Excavation Inc.
an on-site Contractor of Mittal Steel USA Inc.
3210 Watling Street
East Chicago, Indiana 46312

(herein known as the Permittee) is hereby authorized to construct and 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.

Operation Permit No.: T 089-23267-05267	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: December 29, 2006 Expiration Date: December 29, 2011

TABLE OF CONTENTS

A SOURCE SUMMARY

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

B GENERAL CONDITIONS

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

C SOURCE OPERATION CONDITIONS

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

- C.1 Opacity [326 IAC 5-1]
- C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.4 Fugitive Dust Emissions [326 IAC 6-4]
- C.5 Fugitive Dust Emissions [326 IAC 6.8-10] [326 IAC 6.8-11]
- C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

- C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
- C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
- C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

Stratospheric Ozone Protection

- C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS – Iron Ore Pellet Material Handling, Crushing, and Primary and Fines Screening

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

- D.1.1 PSD and Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]
- D.1.2 Particulate Matter (PM) [326 IAC 6.8-1-2(g)]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.4 PM and PM10 Control

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

- D.1.5 Visible Emissions Notations

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

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

E.1 FACILITY OPERATION CONDITIONS – Stationary Compression Ignition Internal Combustion Engines NSPS Requirements [40 CFR Part 60, Subpart III]

- E.1.1 General Provisions Relating to NSPS III [326 IAC 12.1] [40 CFR Part 60, Subpart A]
- E.1.2 Stationary Compression Ignition Internal Combustion Engines NSPS Requirements [40 CFR Part 60, Subpart III]

Certification

Emergency Occurrence Report

Quarterly Deviation and Compliance Monitoring Report

Part 70 Quarterly Reports

Appendix A – Fugitive Dust Control Plan

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 iron ore pellets primary and fines screening operation.

Responsible Official:	Vice President
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Mailing Address:	11829 Burr Street, Crown Point, Indiana 46307
General Source Phone Number:	219-406-9012
SIC Code:	5052
County Location:	Lake
Source Location Status:	Nonattainment for Ozone and PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules, Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

Mittal Steel USA Inc. is an integrated steel mill that consists of a main mill and on-site contractors:

- (a) Mittal Steel USA Inc. (plant ID 089-00316), the primary operation, is located at 3210 Watling Street, East Chicago, IN 46312, and
- (b) Chief Excavation Inc. (plant ID 089-05267), an on-site contractor, is located at 3210 Watling Street, East Chicago, IN 46312.

Separate Part 70 permits will be issued to Mittal Steel USA Inc. and Chief Excavation Inc., solely for administrative purposes. Mittal Steel USA Inc., was issued Part 70 Operating Permit No. 089-6577-00316 on September 12, 2006. Chief Excavation Inc., will be issued Part 70 Operating Permit No. 089-23267-05267.

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

Chief Excavation Inc. consists of the following emission units:

- (a) One (1) screening unit, approved for construction in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower. Under 40 CFR 60, Subpart IIII, this unit is considered a Model Year (MY) 2007 or later engine with a displacement less than 10 liters per cylinder.

- (b) Stockpiles.
- (c) Paved and unpaved roadways.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, 089-23267-05267, 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, 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

the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "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 April 15 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-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

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

Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, 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 089-23267-05267 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and 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 - 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 Operating 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 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (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] [40 CFR 72]

- (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) 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 in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (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] [326 IAC 2-3]

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

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

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

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

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

B.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 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 Opacity [326 IAC 5-1]

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6.8-10] [326 IAC 6.8-11]

- (a) Pursuant to 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:
 - (1) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
 - (2) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
 - (3) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
 - (4) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
 - (5) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.

- (6) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (7) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (8) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (9) The PM10 emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (10) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (11) Any facility or operation not specified in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (12) PM10 emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity
- (13) Fugitive particulate matter from the material processing facilities shall not exceed ten percent (10%) opacity
- (14) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:
 - (A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.
 - (B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)(9)).

Material processing facilities include crushers, screens, grinders, mixers, dryers, belt conveyors, bucket elevators, bagging operations, storage bins, and truck or railroad car loading stations.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted by Mittal Steel (formerly Ispat Inland Inc.), attached to this permit as Appendix A.

- (b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (formerly 326 IAC 6-1-11.2(h), (i), (k), (l), (m), (o), (p) and (q) (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1).

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. 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.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

C.10 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.11 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.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

within 180 days from the date on which this source commences operation.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

C.13 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.14 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.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM,

OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

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

The statement must be submitted to:

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.
- (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.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit

“calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3)).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

Stratospheric Ozone Protection

C.19 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.

Chief Excavation Inc.
East Chicago, Indiana
Permit Reviewer: Jenny Acker

Page 25 of 38
Part 70 Operating Permit No.: 089-23267-05267

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: The ore screening plant consists of the following:

- (a) One (1) screening unit, approved for construction in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower.
- (b) Stockpiles.
- (c) Paved and unpaved roadways.

(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 PSD and Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]

The input of iron ore pellets to the crushing, screening and conveying plant shall not exceed 228,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will ensure that particulate matter emissions from the entire plant are less than 25 tons per year and that emissions of particulate matter less than 10 micron size diameter are less than 15 tons per year, including fugitives. Compliance with this limit renders the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

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

Pursuant to 326 IAC 6.8-1-2(g), the screening operations which are not totally enclosed are subject to 326 IAC 6.8-1-2(g) (formerly 326 IAC 6-1-2(g)) that requires compliance with 326 IAC 2, 326 IAC 5-1 and 326 IAC 6-4.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the aggregate handling and screening equipment.

Compliance Determination Requirements

D.1.4 PM and PM10 Control

The Permittee shall use wet suppression to control emissions of PM and PM10 from the vibrating screen, conveyors, stock piles, and roads. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.1.1, and to ensure that the iron ore processed has a moisture content greater than 10 percent. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the iron ore to ensure it has a moisture content equal to or greater than ten (10) percent. The method for the moisture content analysis shall be approved by IDEM, OAQ.

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

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the material handling, and primary and fines screening operations 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- Response to Excursions or Exceedances. Failure to take response with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the process emission points once per day.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of moisture content analysis, as needed.
- (c) In order to demonstrate compliance with Condition D.1.1, the Permittee shall maintain records of iron ore pellets processed at the stationary crushing, screening, and conveying plant.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.

SECTION E.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: The ore screening plant consists of the following:

- (a) One (1) screening unit, to be constructed in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower. Under 40 CFR 60, Subpart IIII, this unit is considered a Model Year (MY) 2007 or later engine with a displacement less than 10 liters per cylinder.

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

E.1.1 General Provisions Relating to NSPS IIII [326 IAC 12.1] [40 CFR Part 60, Subpart A]

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

E.1.2 Stationary Compression Ignition Internal Combustion Engines NSPS Requirements [40 CFR Part 60, Subpart IIII]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart IIII, as follows:

§ 60.4200 Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
 - (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:
 - (i) Manufactured after April 1, 2006 and are not fire pump engines, or

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

- (a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
- (c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.
- (h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Tables to Subpart IIII of Part 60

Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII
 [As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions.	Yes.	
§ 60.2	Definitions.....	Yes.....	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes.	
§ 60.4	Address.	Yes.	
§ 60.5	Determination of construction or modification.	Yes.	
§ 60.6	Review of plans	Yes.	
§ 60.7	Notification and Recordkeeping.....	Yes.....	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes.....	Except that § 60.8 only applies to stationary CI ICE with a displacement of (>=30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information.....	Yes.	
§ 60.10	State Authority.....	Yes.	
§ 60.11	Compliance with standards and maintenance requirements.	No	Requirements are specified in subpart IIII.
§ 60.12	Circumvention.....	Yes.	
§ 60.13	Monitoring requirements	Yes.....	Except that § 60.13 only applies to stationary CI ICE with a displacement of (>=30 liters per cylinder.
§ 60.14	Modification	Yes.	
§ 60.15	Reconstruction.....	Yes.	
§ 60.16	Priority list.....	Yes.	
§ 60.17	Incorporations by reference.	Yes.	
§ 60.18	General control device requirements. ...	No.	
§ 60.19	General notification and reporting requirements.....	Yes.	

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
Part 70 Operating Permit No.: 089-23267-05267

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
Part 70 Operating Permit No.: 089-23267-05267

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 any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
 Source Address: 3210 Watling Street, East Chicago, IN 46312
 Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
 Part 70 Operating Permit No.: 089-23267-05267
 Facility: Screening operations
 Parameter: Iron ore pellets primary and fines screening, and conveying plant
 Limit: Two hundred twenty-eight thousand (228,000) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Tons of Iron Ore Processed	Tons of Iron Ore Processed	Tons of Iron Ore Processed
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this month.

Deviation/s occurred in this month.

Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Appendix A

Fugitive Dust Control Plan

Submitted by:
Mittal Steel USA Inc.
(formerly Ispat Inland Inc.)
3210 Watling Street
East Chicago, Indiana

**ISPAT INLAND INC.**

December 30, 1999

Mr. Ralph McCullers
Deputy Director
Indiana Department of Environmental Management
Northwest Regional Office
504 North Broadway, Suite 418
Gary, Indiana 46402-1942

RECEIVED**JAN 3 2000**

Indiana Department of
Environmental Management
Northwest Regional Office

Subject: Submittal of Ispat Inland's Revised Fugitive Dust Plan**References: August 3, 1999 IDEM warning letter to Ispat Inland Inc.
Ispat Inland Inc.'s November 2, 1999 response to IDEM**

Dear Mr. McCullers:

In response to your August 3, 1999 letter, please find attached Ispat Inland Inc.'s (Ispat's) revised 'Fugitive Particulate Emissions Control Plan' (Plan). This submittal satisfies your requirement to supply the Indiana Department of Environmental Management's (IDEM's) a revised Fugitive Dust Plan.

On June 29, 1999 a member of your staff observed fugitive emissions on two of our roads. Both of the observed emission situations were localized and due to 'pull out' traffic/ 'track out' silt. The problems were corrected immediately. At the time of the inspection, Ispat had already made a commitment to update the existing Fugitive Dust Plan (old plan).

We have undergone considerable review of the old plan and made adjustments where necessary. In addition, an extensive data collection program has been conducted to update the current fugitive dust inventory. Ispat has reduced PM₁₀ emissions by over 1300 tons; a testament to our dedication to improving air quality.

The revised Plan contains several recommendations to enhance control effectiveness. Specifically, enhanced control measures are listed in Table 5 for paved roads and in Table 6 for unpaved roads. This Plan is intended to be dynamic in order to maximize control effectiveness and adjust to changing sources of fugitive emissions.

The Plan is currently under implementation. However, some control measures cannot be implemented until the winter season has concluded (e.g., road flushing). We anticipate starting the flushing schedule by April 1, 2000 and fully implementing cleaning and control changes by May 1, 2000.

Should questions or concerns arise, please contact me at (219) 399-4516.

Sincerely,

James R. Carson
Senior Staff Engineer
Environmental Affairs

Cc: Dave Sampias, IDEM NWI Office
Janet McCabe, IDEM

**FUGITIVE PARTICULATE MATTER CONTROL PLAN
ISPAT INLAND INC.
INDIANA HARBOR WORKS
EAST CHICAGO, INDIANA**

Prepared for:

James R. Carson
Senior Staff Engineer
Environmental Affairs
Ispat Inland Inc.
Indiana Harbor Works
East Chicago, Indiana

By:

Todd B. Mintzer
Kelly R. Carmichael
Keith A. Hansen
Law Engineering and Environmental Services, Inc.

December 29, 1999

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	IDENTIFICATION OF FACILITIES AND OPERATIONS.....	2
	2.1 Facilities and Operations.....	2
	2.2 Source Location Map.....	3
3.0	DESCRIPTION OF FACILITIES AND OPERATIONS.....	4
	3.1 Paved Road, Unpaved Road, and Storage Piles / Material Handling Description.....	4
	3.2 Material Processing Facilities Description.....	4
	3.3 Material Transfer, In-Plant Transportation, and Dust Handling Facilities Description.....	4
4.0	CONTROL STRATEGIES.....	8
	4.1 Open Dust Sources.....	8
	4.2 In-Plant Transportation	11
	4.3 Dust Handling Equipment.....	11
5.0	ALTERNATIVE CONTROLS UNDER ADVERSE CONDITIONS	12
	5.1 Open Dust Sources.....	12
	5.2 In-Plant Transportation	13
	5.3 Dust Handling Equipment.....	13
6.0	SCHEDULE FOR ACHIEVING COMPLIANCE.....	14
7.0	NET EMISSIONS CHANGE.....	15
8.0	REFERENCES	16

TABLES

FIGURES

LIST OF ILLUSTRATIONS

Tables

- Table 1. Source Category and Coverage
- Table 2. Paved Road Segment Fugitive PM₁₀ Emission Results
- Table 3. Unpaved Road Segment Fugitive PM₁₀ Emission Results
- Table 4. Material Handling Fugitive Particulate Emission Results
- Table 5. Paved Road Segment Control Strategy Summary
- Table 6. Unpaved Road Segment Control Strategy Summary
- Table 7. Exposed Area Control Strategy Summary
- Table 8. Net Change In Fugitive PM₁₀ Emissions

Figures

- Figure 1. Indiana Harbor Works Plant Map Designating Identifications for Fugitive Particulate Matter Sources
- Figure 2. Schematic Facility Flow Diagram – Plant 2 Blast Furnaces
- Figure 3. Schematic Facility Flow Diagram – No. 7 Blast Furnace
- Figure 4. Schematic Facility Flow Diagram – No. 1 Lime Plant
- Figure 5A. Schematic Facility Flow Diagram – No. 2 Basic Oxygen Furnace
- Figure 5B. Schematic Facility Flow Diagram – No. 2 Basic Oxygen Furnace – Ladle Met. and Caster
- Figure 6A. Schematic Facility Flow Diagram – No. 4 Basic Oxygen Furnace – Desulf. and BOF's
- Figure 6B. Schematic Facility Flow Diagram – No. 4 Basic Oxygen Furnace – Vacuum Degasser and Caster
- Figure 7. Schematic Facility Flow Diagram – No. 1 Electric Furnace Shop
- Figure 8. Schematic Facility Flow Diagram – Sinter Plant
- Figure 9. Analysis of Chicago Monthly Freezing Temperatures

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

1.0 INTRODUCTION

The Ispat Inland Inc. (Ispat) facilities and operations covered by this Fugitive Particulate Matter Control Plan (Plan) are located in East Chicago, Indiana and include five contiguous facilities known as Plants 1, 2, 3, 4, and the Frick Property. The facilities and operations are described in detail in Sections 2 and 3 of this submission. Plant 3 and the Frick Property are both closed. Limited to no dust-producing activities are present. Contractor activities located at each of the plants are the responsibility of the individual contractors and are not included in this submission. The three active plants are collectively referred to as "the plant" in this submission.

This project was initiated to formally update the current Particulate Matter Fugitive Emissions Control Plan. New roadways have been created, traffic patterns have changed, major operations have changed, and raw material storage areas have been altered. As a result, it became necessary to consolidate changed information into the current Plan, and to provide the necessary flexibility to create a dynamic working plan.

This submittal addresses open fugitive dust sources as follows:

- Section 2: Identifies the facilities and operations at Ispat
- Section 3: Describes each of the sources at the plant by general function and by specific characteristics necessary to support PM-10 emission calculations
- Section 4: Identifies the current control measures and the expanded control measures to enhance compliance
- Section 5: Identifies the alternative control measures to be employed when conditions prevent execution of the control measures defined in Section 4
- Section 6: Presents the schedule for implementing each of the control measures

2.0 IDENTIFICATION OF FACILITIES AND OPERATIONS

Ispat is referred to as "the source" and is defined by its constituent facilities and operations. 326 IAC 6-1-11.1 (e)(3)(A) through (D) requires inclusion of the source's name and address; identification of the applicable facilities and operations within the source; and location of the facilities and operations on a map. The entity addressed in this Plan is:

Ispat Inland Inc.
3210 Watling Street
East Chicago, Indiana 46312

2.1 Facilities and Operations

326 IAC 6-1-11.1 (e)(3)(C) requires identification of operations and facilities listed in 326 IAC 6-1-11.1 (a)(1):

1. Paved roads and parking lots
2. Unpaved roads and parking lots
3. Material transfer
4. Wind erosion from storage piles and exposed areas
5. Material transportation activities
6. Material processing facilities with capacity equal to or greater than ten (10) tons per hour
7. Dust handling equipment
8. Any other facility or operation with a potential to emit fugitive particulate matter and not included in this subsection

Table 1 shows the facilities and operations required to be listed [326 IAC 6-1-11.1(a)(1)] and are commonly referred to as source categories. The actual specific sources comprising each category are located on the map identified as Figure 1, and will be discussed in detail in Section 3 of this submission.

There are approximately 24 miles of active paved roads at Ispat with approximately 10,500,000 vehicle miles traveled (VMT) yearly. Vehicles using the roads range from light duty passenger vehicles to large capacity haul trucks and coil carriers. The plant speed limit is 20 mph except for Rt. 64 where it is 35 mph. The roads are currently flushed and/or vacuumed according to a schedule set forth in the previous Fugitive Particulate Matter Control Plan.

There are approximately 1.5 miles of active unpaved roads at Ispat with about 41,000 VMT annually. Low traffic volume and a relatively high average vehicle weight characterize the active unpaved roads. A majority of the active unpaved roads are towards the north end of Plant 2.

The majority of the aggregate material handling at storage piles occurs in Plant 2, a fully integrated steelmaking facility. Materials are moved by truck, rail, and marine vessel. There are 5 primary material storage yards: The No. 7 Blast Furnace Ore Yard, the No. 2 Ore Dock / Plant 2 Ore Yard, the Plant 2 Coke Storage Yard, the Nos. 4 & 5 Dock / 4X Yard area, and the Moon Acres / Blending Area. There are also several other smaller material storage areas. Material is moved differently depending on the storage yard location. The Plant 2 Ore Yard and the Plant 2 Coke Storage Yard utilize overhead cranes with clamshells, and the No. 7 Yard has a stacker/reclaimer. The Nos. 4 & 5 Dock / 4X Yard area and the Moon Acres / Blending Area

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

primarily use mobile equipment including end dumps, front end loaders, and portable stackers to move materials in and out of piles.

Exposed areas at Ispat include uncovered expanses of land that have neither structures nor storage piles and are susceptible to wind erosion. Approximately 132 acres of land have been identified at Ispat as exposed areas, although this number changes as material storage moves.

Material transfer operations including enclosed operations such as railcar unloading, conveyor transfer stations, bin loading and unloading, and dust handling exist at Ispat. However, these types of operations are not considered as sources of fugitive dust because they are generally enclosed and generally considered as part of process emissions. This Plan covers open material transfer operations including barge unloading, mobile vehicle material loading and unloading, hopper loading, material screening, and material stacking.

In-plant material transportation operations are omnipresent at Ispat. These operations include truck, front-end loader, and rail movement of various materials between process operations, piles, and material reclamation sites. Some example operations include truck movement of raw materials to stockhouse hoppers, truck movement of materials to recycling sites, and rail delivery of coke and coal to initial hoppers. Detailed material movements are listed in Section 3.0.

2.2 Source Location Map

Open dust sources covered in this Plan are shown on Figure 1. Sources coded with a "P" or a "U" are paved or unpaved road segments, respectively. Sources coded with an "E" are exposed areas. Sources coded with an "S" are storage piles. A textual description of each of the specific sources coded on these maps is given in Section 3 of this Plan.

3.0 DESCRIPTION OF FACILITIES AND OPERATIONS

This section of the Plan identifies and describes fugitive sources at Ispat. 326 IAC 6-1-11.1 (e)(3)(E)(i) through (v) requires full descriptions of the following:

1. The road lengths and widths, average daily traffic, surface silt loading, classification of vehicle traffic, and other data necessary to estimate PM_{10} emissions from paved and unpaved roads and parking lots.
2. A description of each storage pile, including the type of material in the pile, its moisture content, the silt content, the throughput, and the equipment used to load onto and load out of the storage piles.
3. A complete description of the material processing facilities on the plant property, including a material flow diagram of the processing lines, the rated capacity of each piece of equipment, and the existing control equipment and their efficiencies, including the process equipment served.
4. A complete description of the material transfer, inplant transportation, and dust handling equipment. Material transfer operations shall include, at a minimum, those operations contained in subsection (c)(13).
5. All other fugitive particulate matter emitting facilities not covered in this clause.

As stated earlier, material transfer operations including enclosed operations such as railcar unloading, conveyor transfer stations, bin loading and unloading, and dust handling are not considered as sources of fugitive dust because they are generally enclosed and considered as part of process emissions.

3.1 Paved Road, Unpaved Road, and Storage Piles / Material Handling Description

Table 2 presents the field sample results and required data to estimate PM_{10} for paved roads. Table 3 presents the field sample results and required data for unpaved roads. Table 4 presents the field sample results and required data for storage piles and the material handling processes associated with them.

3.2 Material Processing Facilities Description

There are eight principal material processing facilities at Ispat that generate the bulk of the material processing fugitive particulate matter emissions. These facilities include the No. 5 and No. 6 Blast Furnaces, the No. 7 Blast Furnace, the No. 2 Basic Oxygen Furnace, the No. 4 Basic Oxygen Furnace, the Electric Arc Furnace, the Sinter Plant, and the Lime Plant. These facilities are the main users of ores and fluxing agents gathered directly from storage piles.

Figures 2 through 8 are flow diagrams of each of the principal material processing facilities discussed above. Equipment capacities, existing control equipment and their efficiencies, and their corresponding process equipment are all discussed and listed in the Ispat Title V permit application and the Ispat 1998 Air Emissions Inventory, which have been previously submitted to IDEM.

3.3 Material Transfer, In-Plant Transportation, and Dust Handling Facilities Description

Materials are moved from one point to another at Ispat in a variety of ways. Dump trucks, enclosed trailers, front-end loaders, bulldozers, railroad cars, conveyors, screening devices,

clamshells, ore bridges, stackers, and stacker/reclaimers all serve as mediums by which raw materials flow from one point to another. The following provides a text-based description of these activities. Please note that many of these change from time to time depending on equipment and resources available and on changes in materials. These descriptions should be considered general overviews of a very dynamic operation.

3.3.1 Material Transfer

Material Transfer facilities are grouped based on major general areas. The No. 2 Ore Storage Yard uses multiple ore bridges with clamshells to move material from incoming barges into the yard itself, and subsequently into rail cars that move along the length of the yard. These rail cars then travel to hoppers located along the side of the yard to deposit the material en route to the Sinter Plant or the No. 5 and No. 6 Blast Furnace Stockhouse.

Coke received by rail is transported directly from a railcar hopper onto the ore bridges located in the Plant 2 / Mid Continent Coke Storage and Screening area. In this area coke is screened and sorted to be used in the No. 5 and No. 6 Blast Furnaces. The material is emptied into a hopper connected to the blast furnace stockhouse.

The No. 7 Blast Furnace Ore Storage Yard uses a large stacker / reclaimer device to take materials directly from storage piles and place them on a conveyor that travels to the No. 7 Blast Furnace Stockhouse. The stacker / reclaimer also receives materials directly from barges at the No. 6 Dock via a conveyor. The material is received via a hopper at the dock, deposited onto a conveyor, and then taken off the conveyor and placed onto the storage piles in the yard. When this device becomes temporarily inoperable, trucks and front-end loaders are used in its place. This alternate process is discussed in the section dealing with in-plant truck transportation.

The Sinter Plant receives material from throughout the plant. The material is blended on the North End, then hauled to the Sinter Plant and either temporarily stored or dumped into hoppers.

The Lime Plant receives its material from the No. 5 Dock via conveyor. Marine vessels either deposit limestone onto a winter storage pile located at the dock, or empty it into a conveyor hopper, which takes it to the Lime Plant storage piles. From the storage piles, the material moves to the Lime Plant via conveyor.

There are several other smaller areas where raw materials are stored, most of which are handled by in-plant transportation vehicles, and discussed below.

3.3.2 Inplant Transportation

In-plant truck transportation is discussed by commodity. Lime is hauled by forty-ton capacity trucks (load size approximately twenty-three tons) each morning from the Lime Plant to the BOF and the EAF shops. The No. 4 BOF also has a direct lime conveyor. Kiln baghouse dust is hauled off site in enclosed trucks. A truck hauls dribbles from the Lime Plant to the North End storage area. Dribbles are limestone spillage predominantly from the preheater limestone input system. The material is minus one inch with a high percentage of dust. Generally, one to two trips daily are required for dust and dribbles and about twenty daily for lime hauling to the steelmaking facilities.

Iron ore pellets are moved from the No. 7 Blast Furnace Ore Yard to the No. 7 Blast Furnace Stockhouse via a stacker/reclaimer device and conveyor belts. An alternate method is to transport

the raw materials by fifty-ton capacity end dump trucks from the storage piles to the stockhouse hopper, referred to as the "anthill." This is an alternate method because the reclaimer can perform this same operation; however, at times the reclaimer is unavailable due to maintenance reasons. The trip distance is approximately 1,500 to 2,000 feet along Rt. 76. The raw material transport vehicles never attain high speeds along this short haul distance. When low speed is combined with the low silt content of pellets, this is not a significant source of transportation emissions.

In addition, crushed pellets are hauled to the Sinter Plant in 50-ton end dumps from the current location of the mobile crusher. Pellet chips (fines) are removed from the Blast Furnace areas and transported to the Sinter Plant.

Sinter fines along with siliceous ore and bauxite fines are removed from the No. 7 Blast Furnace input stream and transported to the Sinter Plant. The trips are made in 50-ton end dumps. This is a relatively long trip (approximately two and one-half miles) extending from the northern to the southern part of Plant 2.

Slag is transported from Nos. 5, 6, and 7 Blast Furnaces, Nos. 2 and 4 BOF shops, and the EAF shop. Two onsite contractors (Heckett and Beemsterboer) process the slag and thus require slag transportation using end dumps. Since this Plan does not address contractor operations, the focus is on those portions of the transportation operations for the five separate slag sources that are handled by Ispat trucks and rail. Molten slag directly from the Nos. 5 and 6 Blast Furnaces is sent by rail to the north end of the plant, where it is quenched and trucked to the slag storage area to be handled by separate contractors. Molten slag from the No. 7 Blast Furnace is quenched at the furnace itself, and trucked to the slag storage area at the north end also, to be handled by separate contractors. Ispat trucks also move slag from the EAF shop in Plant 4, where it is quenched, to a separate contractor in Plant 2. No. 2 BOF molten slag is transported by rail directly from the furnace to separate contractors within the plant and No. 4 BOF molten slag is transported directly from the furnace by slag pot haulers to the contractor as well.

There are also truck movements associated with transporting coke and coke fines. Ispat is currently using coke in the No. 7 Blast Furnace primarily produced by a separate contractor (Indiana Harbor Coke Company / Lakeshore) via a direct conveyor feed from the contractor's property. Coke fines removed from the input stream of the No. 7 Blast Furnace are hauled by Ispat trucks to the contractor processing area in the No. 7 Blast Furnace Ore Storage Yard (Mid-Continent). Coke is moved by Ispat trucks to/from Mid-Continent from/to other areas in the plant including the No. 2 Ore Storage Dock and the No. 4 / 5 Dock area.

The blending area is used by the Sinter Plant to blend the burden feed, and is located at the northernmost area of Plant 2. This area receives all of its material by end-dump trucks from various operations. This material is then temporarily stored until blended together using front-end loaders and portable stackers. From this point it is trucked over to the Sinter Plant using end-dumps.

There are many other miscellaneous material movements at Ispat. For example, blast furnace flue dust is transported by haul truck once per day from the No. 7 Blast Furnace and once per day from the Nos. 5 and 6 Blast Furnaces combined. In addition, bauxite and siliceous ore are moved by truck to a blending area at the north end of No. 7 Blast Furnace Ore Storage Yard. These types of movements do not generally represent a large number of trips individually.

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

3.3.3 Dust handling

Dust handling equipment has been identified in the Ispat Title V Permit Application. Please refer to this document for identifications and locations of dust handling equipment at Ispat.

Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112

December 29, 1999
Fugitive Particulate Matter Control Plan

4.0 CONTROL STRATEGIES

This section is intended to identify control strategies and their effectiveness for each of the listed source categories as required in 326 IAC 6-1-11.1 (e)(3)(F). Since this Plan is a modification of an existing control plan, a significant portion of this section will be based on enhancing the effectiveness of the previous control plan.

4.1 Open Dust Sources

The categories addressed in this section include paved roads, unpaved roads, material transfer, and wind erosion from storage piles and exposed areas. Note that most of the fugitive particulate emissions originate from paved and unpaved roads at Ispat. Field testing was performed, in part, to evaluate the efficiency and thoroughness of the current roads cleaning program. This provides actual data that can be used for checking the effectiveness of existing programs. It is recommended that this process of data collection, evaluation, and control changes be continued to assure no opacity exceedances are observed and all roads have minimal silt contents.

4.1.1 Paved Road Sources

Paved Road Control Plan

The current paved road control plan involves scheduled cleaning of many road segments in the plant using either vacuum sweeping or flushing or both. The plant currently uses four vacuum sweepers and three flushers to maintain the paved roads. One additional flusher is used as a back-up. Each piece of control equipment is assigned to a specific set of roads on a specific set of days.

Table 5 shows both the existing and expanded paved road control strategies for each road segment at Ispat. The Map Identification reference in Table 5 refers to Figure 1, which displays the codes for each of the 73 paved road segments. Under existing controls, the treatment frequency is shown. The columns in Table 5 entitled "New Flushing Strategy," "New Sweeping Strategy," and "New Sequential Sweeping Then Flushing Strategy" show additional proposed controls for road segments in the plant, as determined by ranking the silt loadings on each of the paved road segments, using loadings above 100 lb/mile as a target for additional controls. The spreadsheet provides three recommended options. Any one option from the last three columns may be chosen as an appropriate cleaning methodology for each road segment. The road segments were ranked in descending order, beginning with the highest measured silt loading in oz/ft².

Paved Road Control Effectiveness

326 IAC 6-1-11.1 (e)(5) of the regulation states that "a source shall consult Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, AP-42 fourth edition, September 1985 and Control of Open Sources of Fugitive Dust, U.S. EPA, September 1988 to determine the effectiveness of the applicable control practices and measures."

Very little data and almost no correlations exist to estimate control efficiencies on paved roads. The only known information published by the EPA comes from the EPA document entitled, "Control of Open Fugitive Dust Sources," which correlates control efficiency to vehicle passes. This correlation may be somewhat useful in situations such as high trackout areas, but in general has many shortcomings. For instance, many roads acquire silt from air deposition. In these cases the EPA correlations are not representative. In addition, cumulative effects are not taken into

Ispat Inland Inc. / East Chicago, IN
Law Project 13000-9-0112

December 29, 1999
Fugitive Particulate Matter Control Plan

account. For example, if a flusher truck immediately reflushes one segment, the control efficiency would be much closer to ninety percent than the upper value of sixty-nine percent that the EPA cites. Therefore, these correlations should be used only as a general guide and site-specific engineering judgement should always prevail. In addition, the EPA correlations may be the only guidance to start a control program. Once the correlation values are established and adjusted for site-specific conditions, opacity and silt loading samples should be taken to adjust the control program.

One measure of the effectiveness of road controls at Ispat is the silt loading field testing, given in ounces of silt per square foot. The existing program was rated using this parameter as it applies to each paved road segment. The existing program was rated simultaneously with the creation of an emissions inventory. These results are summarized in Table 5.

Opacity readings show that there are currently no roads having consistently high opacity readings.

4.1.2 Unpaved Road Sources

The central concept in the existing plan entails the use of chemical application as the primary control measure.

Unpaved Road Control Plan

The proposed unpaved road control measures involve both application of a chemical dust suppressant and watering. Ispat has one spray truck dedicated to chemical dust suppression. This is sufficient to handle the applications in this proposed Plan.

Table 6 shows the proposed dust suppression program for unpaved roadways. The eight active unpaved road segments are listed along with their map reference on Figure 1. Table 6 shows the yearly number of vehicle passes.

There is one road segment listed on Table 6 that will not be regularly treated with chemical dust suppressant. Due to internal logistics, the No. 2 Ore Dock road will be watered when possible, even though a high frequency of watering is recommended (2+ times per turn, 2 turns per day). During the winter, freezing temperatures may preclude the use of water. Before freezing conditions are encountered, the No. 2 Ore Dock road will be treated with chemical dust suppressant, if necessary.

Unpaved Road Control Effectiveness

The following discussion of unpaved road chemical dust suppression effectiveness test data was taken from the EPA document 450/3-88-008, entitled "Control of Open Fugitive Dust Sources," section 3.3.3.2, and the Dr. Unger document entitled "Investigation of Relationship of Visible Emissions to TSP/PM₁₀ Control Efficiency." Those documents conclude that performance is highly dependent on:

1. The amount of chemical applied to the surface of an unpaved road over a period of time
2. The yearly number of vehicle passes over the surface of an unpaved road
3. The amount of trackout onto the unpaved road surface

Control efficiency of ninety percent is dependent upon:

1. The application frequency specified in Table 6 is followed
2. Vendor specifications including application intensity, dilution ratios, and any necessary road surface preparations are followed
3. The material transportation preventative measures of covers, freeboard, and speed control are employed

By meeting the above requirements, chemical control should decay from ninety-five percent immediately after initial application to about eighty-five percent after approximately twenty thousand vehicle passes [M. Unger, 1990], at which time the chemical should be reapplied, thus yielding an average of ninety percent control. In most cases, it is recommended that dust suppressant be re-applied every twenty thousand vehicle passes to achieve an average ninety percent control. Please note, ninety percent control may not be required to meet opacity standards, but is used as a reference point. However, there are additional segment-specific items that justify more frequent application of dust suppressant:

1. The main source of material on the road is trackout, which consistently deposits new material onto the top of the chemically treated surface
2. The unpaved road segment is identified by plant personnel or visible emissions to be a chronic trouble segment

4.1.3 Material Transfer Operations and Wind Erosion from Storage Piles and Exposed Areas

Since the fugitive particulate matter control methods for material transfer operations and wind erosion are the same, they are discussed together.

Certain types of materials warrant a need for emissions control during the course of a year due to combinations of factors including recent disturbances, high silt contents, and high wind speeds. It should be clear, however, that the likelihood of the correct combinations of the listed events occurring on the same day is very small. Therefore, the following discussion proposes a plan to address the occurrence of a significant emissions event on an as-needed basis. Finally, a discussion of control for other miscellaneous disturbed exposed areas is presented.

Please note that instances of excess opacity from any area warrant attention and control. Opacity is the ultimate compliance method. In the event excess opacity is observed from an area, this Plan recommends further evaluation to enhance control.

The control plan for emissions in storage pile areas is twofold. In most cases, good work practices provide substantial opportunities for emission reduction. These practices include the following items:

1. Load and unload materials on the downwind side of piles to reduce the wind load on the material
2. Minimize the drop height of materials to minimize exposure to wind and disturbance of the pile

In addition, water cannons mounted on the flusher trucks, or in certain cases, permanently mounted in the vicinity of storage piles can be used whenever the correct combinations of events occur to produce opacity concerns. These control techniques generally can be employed on an as-needed basis.

Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112

December 29, 1999
Fugitive Particulate Matter Control Plan

Neither AP-42 nor the 1988 USEPA report entitled "Control of Open Fugitive Dust Sources" provide estimates of control efficiency from watering piles to prevent fugitive particulate emissions. Watering when applied to other source categories is generally in the range of twenty-five to seventy-five percent control efficiency. Recent permits issued by the State of Indiana indicate that water control is believed to be approximately fifty percent. The effectiveness of this Plan is dependent on quick response to an event, which may already be ongoing. Another possible source of material handling and wind erosion emissions at the North End storage area is contractor storage piles; however, Ispat is not responsible for these operations.

In contrast to the major storage areas, which are relatively large grouped areas of storage piles and material handling activities, there are many small miscellaneous exposed areas throughout the plant that may be potentially disturbed during the year on an unpredictable schedule. The existing Ispat control plan involves the application of a dust suppressant chemical to these surfaces. The proposed Plan will continue the concept of using dust suppressant chemicals as needed on miscellaneous exposed areas that are disturbed throughout the year. Table 7 summarizes the major exposed areas within Ispat, and their corresponding recommended dust suppressant application frequencies.

The dust suppression frequencies in Table 7 were determined based upon previous dust suppression frequencies. It is recommended that the majority of exposed areas be suppressed as needed. In places where existing dust suppressant strategies are involved, the same strategies are retained in this Plan. One exception is the Blending Area. Since the purpose of the Blending Area is to handle raw materials, it is anticipated that the majority of the surface of the Blending Area is continually disturbed and replenished with new trackout material. Unlike other exposed areas, durable crusts are not given a chance to form here. As a result, it is recommended that dust suppressant be applied in this area more frequently, especially on traveled areas.

4.2 In-Plant Transportation

In-plant transportation of materials is described in Section 3.4 of this Plan. The focus of this source category is the transport of materials via hauling vehicles. This category includes dust blown from the bed and from horizontal surfaces of the vehicle that has collected material.

The control strategy for this source category involves preventative measures. These measures include covering fine material loads when possible, retaining a minimum one-foot freeboard at loading, and enforcement of the plant speed limits. These procedures will minimize dust blowing and/or spilling from the truck bed. 326 IAC 6-1-11.1 (d)(6) states that "material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in-plant transportation requirement."

4.3 Dust Handling Equipment

Typically, dust handling equipment located throughout Ispat operates with pneumatic devices connected to enclosed collection devices including trailers and storage bags. Since dust handling operations are typically enclosed, further control is typically unwarranted.

5.0 ALTERNATIVE CONTROLS UNDER ADVERSE CONDITIONS

326 IAC 6-1-11.1 (e)(3)(G) of the regulation requires "a list of the conditions that will prevent control measures and practices from being applied and alternative control measures and practices that will achieve compliance with the emissions limitations." This section of the Plan addresses alternate controls on a case-by-case basis. These lists are not exhaustive, but indicate typical conditions encountered that prevent control measures and practices from being applied.

5.1 Open Dust Sources

Freezing temperatures can effect the control of fugitive dust from open dust sources. Freezing temperatures preclude the use of water during winter months, which is an element in the control of paved and unpaved roads, raw material handling, and wind erosion from storage piles. Flushing is a part of the paved road control plan; watering and water-based chemical dust suppression is part of the unpaved road control plan; and water cannons are used for both material handling and wind erosion.

Figure 9 shows freezing temperatures in Chicago for the 1998 calendar year. This information was taken from the Monthly Local Climatological Data Summaries published by the National Climatic Data Center (NCDC). The Chicago meteorological data approximates temperatures at Ispat. Figure 9 shows that even during the wintertime, the monthly average high temperature is above freezing. However, twenty-four hour temperatures are typically still well below freezing and prevent the use of water as a control strategy throughout the winter months. During this period, typical moisture content in the ground and in materials often freezes and acts as a crusting agent and adequately controls fugitive dust without the use of additional water control. Normal watering schedules will be implemented once conditions warrant continuation of the normal schedule.

5.1.1 Paved Road Sources

The proposed primary paved road control measures include flushing and vacuum sweeping. Preventative measures include covered loads, control equipment maintenance, and performance monitoring procedures. During the winter, which generally occurs between the first of December and the first of April, trackout conditions are minimized or eliminated due to frozen ground. Since trackout is a significant source of roadway material, the sweeping schedule may be reduced up to seventy-five percent. Alternate winter procedures include the assignment of vacuum sweepers to additional turns to help mitigate problems associated with reduced flushing frequency.

5.1.2 Unpaved Road Sources

The primary unpaved road control measures include chemical dust suppression, watering, preventative measures (e.g., covered loads), and equipment maintenance/performance monitoring measures. Of the above, only chemical dust suppression and watering require an alternate strategy during the winter.

The only unpaved section of roadway that requires water treatment is the road along the No. 2 Ore Dock. Therefore, in this location, it is recommended that dust suppressant be applied before the winter.

5.1.3 Material Transfer Operations and Wind Erosion from Storage Piles and Exposed Areas

Since the primary material transfer operations controls are good work practices, such as minimizing drop height and loading and unloading materials on the leeward side of piles, there is minimal need for a set of alternative controls.

326 IAC 6-1-11.1(d)(5) states that normal opacity limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to very high wind speeds. It also states that the company must continue to implement all reasonable control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions. As a result, it is important for Plant Support to keep records documenting high wind speed conditions that may cause temporary high opacity readings.

The primary control measure for wind erosion from exposed areas is chemical dust suppression. Typically, these areas require application only when needed. Adverse conditions will likely have a minimal effect on fugitive emissions. During winter conditions, the ground is typically frozen, and will not likely erode.

5.2 In-Plant Transportation

The primary control plans, which include covering trucks hauling fine material, maintaining a minimum of one foot freeboard on loading, and speed limit enforcement, will require no alternate controls since there are no foreseen circumstances that will prevent these control measures from being applied.

5.3 Dust Handling Equipment

As discussed earlier, dust handling equipment located throughout Ispat typically operates using closed pneumatic devices connected to enclosed collection devices including trailers and storage bags. Equipment failure of control equipment receives priority repair.

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

6.0 SCHEDULE FOR ACHIEVING COMPLIANCE

326 IAC 6-1-11.1 (e)(3)(H) of the regulation requires a schedule for achieving compliance with provisions of the control plan. The new plan will be implemented by May 1, 2000.

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

7.0 NET EMISSIONS CHANGE

Table 8 shows the net emissions changes as a result of enhanced control. Ispat has reduced PM₁₀ emissions by over 1,300 tpy.

*Ispat Inland Inc. / East Chicago, IN
Law Project 12000-9-0112*

*December 29, 1999
Fugitive Particulate Matter Control Plan*

8.0 REFERENCES

EPA Document 450/3-88-008; "Control of Open Fugitive Dust Sources," The United States Environmental Protection Agency

"Investigation of Relationship of Visible Emissions to TSP/PM₁₀ Control Efficiency," Indiana University Northwest, M. Unger

EPA Document "Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, AP-42 Fourth Edition, September 1985," The United States Environmental Protection Agency

TABLES

Table 1: Source Category and Coverage
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Source Category	1999 Category Coverage
Paved Roads	Approximately 24 miles total; Approximately 10,500,000 VMT per year
Unpaved Roads	Approximately 1.5 miles total; Approximately 41,000 VMT per year
Material Transfer and Handling	Approximately 25,000,000 tons/yr of fugitive particulate matter producing material moved
Wind Erosion from Storage Piles and Exposed Areas	Approximately 132 acres of exposed area and approximately 50 wind erosion fugitive particulate matter producing piles
Material Transportation Activities	Mobile vehicle and railcar movement of raw materials, mobile vehicle VMT included in emission inventory
Material Processing Facilities	See ISPAT Title V Permit Application
Dust Handling Equipment	See ISPAT Title V Permit Application

Generated By: IBM
Checked By: KRC

Table 2: Paved Road Segment Fugitive PM₁₀ Emission Results

Ispat Inland Inc.

East Chicago, Indiana

Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt [%]	Silt Loading [oz/ft ²]	Average Vehicle Weight [tons]	AP-42 PM ₁₀ Emission Factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
1P	Rt. 40 Southbound Lanes Between Rt. 60 and Truck Middle Gate	20.4	0.0069	20.4	0.2931	0.206	1,353,240	278,593	40.83
2P	Rt. 30	15.2	0.0090	7.2	0.0734	0.303	766,124	232,304	8.52
3P	Rt. 25	34.2	0.0271	3.0	0.0402	0.161	53,692	8,644	0.17
4P	Rt. 43 Between Rt. 23 and No. 2 Ore Dock	12.0	0.2810	26.4	4.7992	0.252	107,615	27,148	65.14
5P	Rt. 23	9.1	0.0159	6.0	0.0799	0.515	313,812	161,601	6.46
6P	Rt. 22 Between No. 2 BOF Sludge Trailers and Railroad Tracks	20.1	0.0146	6.6	0.0877	0.134	84,811	11,405	0.50
7P	Rt. 71S From Slag Quench Pits to Rt. 71, Under Conveyor	3.4	0.0844	47.7	5.3361	0.076	64,833	4,948	13.20
8P	Rt. 21	17.1	0.0028	8.4	0.0433	0.485	387,484	187,797	4.06
9P	Rt. 43 Between Rt. 40 and Rt. 23 at Railroad Tracks	26.2	0.0067	28.8	0.4824	0.194	524,788	101,876	24.57
10P	Rt. 40 Between Rt. 60 and Rt. 43	13.7	0.0011	11.9	0.0385	0.205	1,539,684	315,519	6.08
11P	Rt. 40 Between Rt. 43 and Rt. 50	28.0	0.0043	11.7	0.0937	0.466	1,523,922	709,432	33.24
12P	Rt. 60 Between Rt. 40 and Rt. 61	4.9	0.0026	10.7	0.0592	0.128	1,636,392	209,508	6.20
13P	Rt. 60 Between Rt. 61 and Rt. 62	3.1	0.0019	23.5	0.1571	0.518	1,076,458	558,005	43.83
14P	Rt. 61 Between Rt. 60 and the Quality Control/Deep Well Intersection	3.1	0.0030	6.8	0.0330	0.167	1,007,725	167,954	2.77
15P	Rt. 61 Between Quality Control/Deep Well Intersection and Rt. 62	10.0	0.0025	3.0	0.0085	0.576	277,291	159,705	0.68
16P	Rt. 61 ext. Between Rt. 61 and Rt. 62	11.4	0.0053	57.1	1.1558	0.401	209,091	83,914	48.49
17P	Paved Coil Storage Fields	14.1	0.0618	42.0*	3.6021*	0.511	233,922	119,634	107.73*

Table 2: Paved Road Segment Fugitive PM₁₀ Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt [%]	Silt Loading [oz/ft ²]	Average Vehicle Weight [tons]	AP-42 PM ₁₀ Emission Factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
18P	Rt. 60 Between Rt. 62 and Rt. 63/64	9.4	0.0033	16.6	0.1339	0.733	1,080,164	792,120	53.03
19P	Rt. 64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.0004	4.9	0.0058	0.645	1,051,725	677,845	1.96
20P	Rt. 64 Between Propane Tank Farm Road and Rt. 60	9.0	0.0034	8.6	0.0506	0.832	592,836	493,132	12.48
21P	Rt. 42 Between Rt. 40/46 and Briquetting	27.4	0.0700	19.3	1.2207	0.483	62,769	30,315	18.50
22P	Rt. 42 Between Rt. 44 and No. 1 Cold Strip	6.9	0.0049	4.8	0.0273	0.296	123,749	36,609	0.50
23P	Rt. 45 to Briquetting	16.1	0.0137	9.3	0.1413	0.093	74,838	6,974	0.49
24P	Rt. 63 Between Rt. 40 and Rt. 60	13.8	0.0012	7.9	0.0226	0.265	1,140,149	301,664	3.40
25P	Rt. 63 Between Rt. 70 and Rt. 46 to No. 4 AC Station	14.7	0.0136	6.5	0.0821	0.390	313,621	122,360	5.03
26P	Rt. 70 Between Rt. 63 and Rt. 71	34.9	0.0027	7.5	0.0356	0.321	677,132	217,118	3.86
27P	Rt. 46 Between Rt. 52 and the Heckett Garage	15.9	0.0081	13.6	0.1771	0.119	150,185	17,806	1.58
28P	Rt. 52 Between Rt. 56 and Scrap Inspection Facility	19.3	0.0068	20.9	0.3007	0.298	140,014	41,713	6.27
29P	Rt. 52 Between Scrap Inspection Facility and Rt. 46	27.4	0.0034	13.1	0.0984	0.377	128,760	48,553	2.34
30P	Rt. 50 Between Rt. 40 and Cleaning Services	10.7	0.0021	13.2	0.0696	0.361	932,093	336,471	11.70
31P	Rt. 50 Between Cleaning Services and Rt. 46	11.4	0.0028	4.3	0.0160	0.415	123,455	51,182	0.41
32P	Rt. 56 Between Rt. 50/52 and Lime Plant North Entrance	12.6	0.0037	14.0	0.1116	0.318	376,004	119,638	6.68
33P	Rt. 56 Between Lime Plant North Entrance and Rt. 41	20.6	0.0152	19.0	0.4387	0.137	382,566	52,458	11.51
34P	Rt. 40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	0.0041	3.9	0.0176	0.239	2,909,903	695,511	6.13

Table 2: Paved Road Segment Fugitive PM₁₀ Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt [%]	Silt Loading [oz/ft ²]	Average Vehicle Weight [tons]	AP-42 PM ₁₀ Emission Factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
35P	Rt. 56 Between Rt. 54 and Rt. 41	3.9	0.0147	13.5	0.2588	0.131	314,636	41,296	5.34
36P	No. 4 BOF South Access Road	10.1	0.0135	8.3	0.1174	0.229	153,054	35,017	2.06
37P	Rt. 41 (Chisom Trail) Between Rt. 56 and Rt. 43	12.8	0.0004	35.0	0.1103	0.859	142,192	122,210	6.74
38P	Rt. 56 Between Rt. 54 and Rt. 76	12.6	0.0052	29.6	0.4288	0.318	118,526	37,668	8.08
39P	Rt. 76 Between Rt. 56/71 and Rt. 74	7.4	0.0008	37.5	0.1862	0.593	112,906	66,910	6.23
40P	Rt. 71 Between Rt. 56/76 and Rt. 74	28.6	0.0130	9.8	0.1474	0.698	40,067	27,948	2.06
41P	Rt. 71 Between Rt. 70 and New Coke Dump	14.3	0.0004	26.6	0.0632	0.369	355,315	131,157	4.15
42P	Rt. 70 Between Rt. 71 and Coal Preheat Tower	18.6	0.0127	8.7	0.1205	0.248	374,044	92,590	5.58
43P	Rt. 70 Between Coal Preheat Tower and Slag Pot Handling	18.0	0.0373	3.0	0.0495	0.366	175,445	64,164	1.59
44P	Rt. 71 Between New Coke Dump and West End of Rt. 75	15.4	0.0065	15.3	0.1820	0.328	94,101	30,850	2.81
45P	Paved Part of Rt. 75 (Moon Acres)	21.6	0.0383	28.5	1.4748	0.398	4,306	1,713	1.26
46P	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	0.0046	4.7	0.0251	0.230	207,301	47,585	0.60
47P	Rt. 40 Between Rt. 50 and Rt. 45	8.9	0.0002	12.4	0.0153	0.272	1,079,312	293,744	2.25
48P	Rt. 40 Between Rt. 45 and Rt. 46/42/63	12.3	0.0049	8.2	0.0596	0.538	690,168	370,965	11.06
49P	Rt. 75 Between New Coke Dump and Slag Mountain, Behind New Coke Battery	21.8	0.0125	50.2	1.6657	0.521	179,589	93,638	77.98
50P	Plant 4, Rt. 4 Between Gate and Roll Reclamation	5.8	0.0014	15.4	0.0673	0.391	431,540	168,856	5.68
51P	Plant 4, Rt. 4 Between Roll Reclamation and South End of No. 1 EAF	7.2	0.0137	17.1	0.3529	0.200	264,565	52,913	9.34

12/29/1999

IDEMplan.xls,2. Paved PM10

Table 2: Paved Road Segment Fugitive PM₁₀ Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt [%]	Silt Loading [oz/ft ²]	Average Vehicle Weight [tons]	AP-42 PM ₁₀ Emission Factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
52P	Plant 4, Rt. 4 Between South End of No. 1 EAF and South End of Bar Co. Scrapyard	14.3	0.0497	8.0	0.2601	0.311	132,058	41,043	5.34
53P	Plant 4, Rt. 4 Between Gate and North End of Bar Co. Scrapyard	18.3	0.0096	18.7	0.3185	0.180	109,425	19,647	3.13
54P	Plant 1 Roads	24.1	0.0034	6.9	0.0369	0.489	340,040	166,156	3.07
55P	Propane Tank Farm Road Between Rt. 60/63 and CAL Parking Lot	6.0	0.0018	22.6	0.1423	0.512	315,006	161,202	11.47
56P	Propane Tank Farm Road Between CAL Parking Lot and Rt. 64	11.2	0.0032	4.2	0.0165	0.151	621,675	93,604	0.77
57P	Propane Tank Farm Road Extension.	3.6	0.0038	6.2	0.0335	0.244	211,917	51,695	0.87
58P	Rt. 62 Between Rt. 60 and Rt. 61 ext.	10.8	0.0080	44.3	1.0349	0.242	489,900	118,485	61.31
59P	Lime Plant Truck Loop to Pick Up Baghouse Dust and Dribbles	26.4	0.0251	21.5	0.7946	0.143	24,360	3,488	1.28
60P	Rt. 40 Northbound Lanes Between Truck Middle Gate and Rt. 60	16.3	0.0014	4.4	0.0101	0.206	2,056,638	423,403	2.14
61P	Rt. 20	13.6	0.0051	4.4	0.0243	0.167	364,704	60,991	0.74
62P	Rt. 46 Between Rt. 40 and Rt. 52	16.9	0.0049	5.6	0.0336	0.094	482,372	45,222	0.76
63P	Rt. 44 From Rt. 40 to Rt. 42	8.7	0.0070	5.8	0.0452	0.123	264,739	32,641	0.74
64P	Rt. 63 Between Rt. 46 and Rt. 56	13.3	0.0088	8.5	0.0921	0.498	213,418	106,184	4.89
65P	Rt. 54 Between Slag Pot Handling and Rt. 56	9.3	0.0255	5.0	0.0832	0.326	173,509	56,555	2.35
66P	Rt. 74 from Stockhouse, to the South	11.4	0.0242	9.0	0.1942	0.516	30,742	15,854	1.54
67P	Rt. 71S Between New Coke Dump and Rt. 71	41.7	0.0122	53.8	1.8205	0.286	73,971	21,127	19.23
68P	Rt. 71C Between 71S and New Coke Dump	24.9	0.0360	3.0	0.0484	0.240	4,162	998	0.02

Table 2: Paved Road Segment Fugitive PM₁₀ Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt [%]	Silt Loading [oz/ft ²]	Average Vehicle Weight [tons]	AP-42 PM ₁₀ Emission Factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
69P	Rt. 71C Between New Coke Dump and Rt. 71, by Chlorine Building	20.4	0.0195	6.1	0.0951	0.149	11,972	1,789	0.09
70P	Rt. 72 Between Rt. 71/70 and No. 2 BOF Filter Cake Area Entrance	15.8	0.0091	22.7	0.4104	0.209	2,606	545	0.11
71P	Rt. 72 Between No. 2 BOF Filter Cake Area Entrance and Rt. 70	13.9	0.0282	22.7	0.8583	0.085	4,805	407	0.17
72P	No. 7 BF East Baghouse Road Between Slag Quench Pits and East Baghouse	23.7	0.1320	17.8	1.6215	0.061	4,364	264	0.21
73P	PCI Road from Rt. 70	31.5	0.0057	8.7	0.0721	0.150	31,074	4,649	0.17
Totals						23.69		10,484,630	723.82

*Coil carriers generate minimal emissions due to low speed and an open bottom. In addition, the weight of these vehicles exceeds the AP-42 recommended range. To obtain more realistic emissions the maximum AP-42 weight of 42 tons is used and emissions are assumed to be half that of normal vehicle emissions

Generated By: IBM
 Checked By: KRC

Table 3: Unpaved Road Segment Fugitive PM₁₀ Emission Results
Ispat Inland Inc.

East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Unpaved Road Segment Description	Silt [%]	Moisture [%]	AP-42 PM ₁₀ Emission factor [lb/VMT]	Road Segment Length [mi]	Annual Traffic [veh/yr]	Segment VMT [VMT/yr]	PM ₁₀ Emissions [ton/yr]
74U	Road Between Rt. 75 Through Blending Area to Fritz Area	5.7	0.9	3.18	0.229	7,305	1,673	2.7
75U	No. 7 BF Slag Road (Rt. 73) Around Front of Slag Quench Pits	8.9	0.6	3.21	0.098	34,417	3,383	5.4
76U	No. 7 BF East Baghouse Road Between East Baghouse and No. 5 Boilerhouse	5.5	0.5	2.20	0.049	1,841	91	0.1
77U	Extension of No. 7 BF East Baghouse Road from No. 5 Boilerhouse to Rt. 71	5.5	0.5	1.08	0.113	73,596	8,293	4.5
78U	Unpaved Coil Storage Area ^b	0.8	0.5	0.79	0.049	7,305	361	0.1
79U	No. 2 Ore Dock Road	7.8	0.1	2.02	0.660	27,244	17,977	18.2
80U	Plant 4, Rt. 4, Unpaved Section Between South End of the Bar Co. Scrapyard and North End of the Bar Co. Scrapyard	6.6	0.6	2.33	0.140	61,748	8,619	10.1
81U	Unpaved Part of Moon Acres Rd (Rt. 75)	7.4	0.2	5.19	0.198	3,617	717	1.9
82U	Periodic Rubble Road	a						
Totals					1.54		41,114	42.9

a) The Periodic Rubble Road was not tested due to periodic existence. At the time of testing, the road did not exist.

b) Silt and moisture contents approximated

Generated By: IBM
 Checked By: KRC

Table 4: Material Handling Fugitive Particulate Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Storage Pile Material Description	Silt [%]	Moisture [%]	AP-42 PM ₁₀ Emission factor [lb/ton]	Throughput [ton/yr]	Number of Drops	PM ₁₀ Emissions [ton/yr]
1S	Limestone	0.10	a	-	-	-	-
2S	Empire Ore	1.31	1.05	5.7520	742987	3	7.77
3S	Wabush Ore	3.30	1.32	4.5263	805462	3	6.12
4S	Royal Ore	1.50	1.05	3.6151	466963	3	4.89
5S	Royal Ore	1.50	1.05	3.6151	466963	3	4.89
6S	Lime	2.50	4.97	0.0994	113204	3	0.13
7S	Lime Flux Fines	0.87	3.17	0.0062	5660	2	0.01
8S	I.O.C. Chips	11.50	7.00	0.1608	443493	2	0.22
9S	Q.C.M.	3.90	2.80	0.2395	183233	2	0.32
10S	Sinter Fines	1.40	1.50	7.6334	609220	8	10.32
11S	No. 7 Blast Furnace Pellet Fines	2.26	2.38	0.8361	254706	4	1.13
12S	Silicious Ore	0.40	a	-	-	-	-
13S	Sinter Output	0.15	a	-	-	-	-
14S	Ilmenite	1.20	0.25	1.4784	25609	3	2.00
15S	Viceroy	0.19	a	-	-	-	-
16S	Minorca	0.19	a	-	-	-	-
17S	Minorca	0.19	a	-	-	-	-
18S	Minorca	0.19	a	-	-	-	-
19S	Minorca	0.19	a	-	-	-	-
20S	Silicious Ore	0.40	a	-	-	-	-
21S	Bauxite	3.06	2.90	0.2060	66211	5	0.28
22S	Bauxite Blend	b	b	-	-	-	-
23S	Sinter	0.15	a	-	-	-	-
24S	Bauxite Blend Fines	4.10	4.30	0.0285	9932	8	0.04
25S	Coke	1.77	10.70	0.5597	932300	6	0.76
26S	Coke	1.77	10.70	0.0444	73887	6	0.06
27S	Coke	1.77	10.70	0.0861	143428	6	0.12

12/29/1999

IDEMplan.xls, 4. Mat Trn

Table 4: Material Handling Fugitive Particulate Emission Results
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Storage Pile Material Description	Silt [%]	Moisture [%]	AP-42 PM ₁₀ Emission factor [lb/ton]	Throughput [ton/yr]	Number of Drops	PM ₁₀ Emissions [ton/yr]
28S	Coke	1.77	10.70	0.1006	167494	6	0.14
29S	Skimmer	2.26	2.38	0.0319	38885	1	0.04
30S	Preblend	c	65.13	-	-	-	-
31S	C2	4.00	5.01	0.1640	188939	3	0.22
32S	K-1	4.20	4.41	0.1930	186148	3	0.26
33S	Skimmer Fines	2.60	6.70	0.0225	38885	3	0.03
34S	Revert	3.23	4.04	0.0452	38505	3	0.06
35S	No. 7 Pellet Fines	b	b	-	-	-	-
36S	No. 7 Pellet Fines	b	b	-	-	-	-
37S	Scale	5.00	5.00	0.0732	84026	3	0.10
38S	Scale	5.00	5.00	0.0244	84026	1	0.00
39S	Limestone Fines	0.87	3.17	0.1071	65000	3	0.14
40S	Limestone	0.10	a	-	-	-	-
41S	Bauxite	b	b	-	-	-	-
42S	Silicious Ore	b	b	-	-	-	-
43S	Screened Sinter Fines (-3/16)	1.40	0.25	12.1367	78840	8	16.40
44S	Screened Sinter Fines (+3/16)	0.72	1.46	1.0259	78840	8	1.39
45S	Dolomitic Limestone	0.10	a	-	-	-	-
46S	High-Calcium Limestone	0.10	a	-	-	-	-
47S	Dolomitic Limestone	0.10	a	-	-	-	-
48S	High-Calcium Limestone	0.10	a	-	-	-	-
49S	Sinter Fines	1.40	0.25	24.2735	157680	8	32.80
50S	Oily Scale	5.00	7.00	0.0805	148026	3	0.11
51S	2BOF Sludge	c	18.36	-	-	-	-
52S	4BOF Sludge	c	54.17	-	-	-	-
53S	4BOF Grit	5.60	9.50	0.0033	14000	2	0.00
54S	2BOF Sludge	c	18.36	-	-	-	-

Table 4: Material Handling Fugitive Particulate Emission Results

Ispat Inland Inc.
 East Chicago, Indiana
 Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Storage Pile Material Description	Silt [%]	Moisture [%]	AP-42 PM ₁₀ Emission factor [lb/ton]	Throughput [ton/yr]	Number of Drops	PM ₁₀ Emissions [ton/yr]
55S	2BOF Grit	5.60	9.50	0.0028	12000	2	0.00
56S	Scale	2.40	5.00	0.0372	64000	2	0.05
57S	Slag	2.40	1.20	4.0222	626340	3	5.44
58S	Slag	2.40	1.20	8.3734	1303926	3	11.32
59S	Coke	1.77	10.70	0.0886	110710	8	0.12
60S	Coke	1.77	10.70	0.0886	110710	8	0.12
61S	Coke	1.77	10.70	0.0886	110710	8	0.12
62S	Coke	1.77	10.70	0.0886	110710	8	0.12
63S	Coke	1.77	10.70	0.0886	110710	8	0.12
64S	Coke	1.77	10.70	0.0886	110710	8	0.12
65S	Coke	1.77	10.70	0.0886	110710	8	0.12
66S	Slag	0.40	a	-	-	-	-
67S	Coal	5.00	8.00	1.3169	4380000	2	1.78
12E	Blend	4.20	3.50	2.5779	770000	7	3.48
Totals							113.64

a) not defined as a particulate producing material in IDEM regulation due to silt < 0.5%
 b) material transfer emissions for this material are calculated using preceding material pile locations
 c) not considered as a particulate producing material due to moisture contents > 15%

Generated By: IBM
 Checked By: KRC

Table 5: Paved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt Loading [oz/ft ²]	Existing Flushing Strategy [times per day]	Existing Sweeping Strategy [times per day]	CONTROL OPTIONS		
					New Flushing Strategy* [up to X times per day]	New Sweeping Strategy* [up to X times per day]	New Sequential Sweeping Then Flushing Strategy* [up to X times per day]
21P	Rt. 42 Between Rt. 40/46 and Bracketing	0.0700			3	4	2
47P	Paved Coil Storage Fields	0.0616	0	1/2 Per Day	0	1	0
52P	Plant Area Between South End of No. 1 EAF and South End of Bar Co. Scrapyard	0.0497	0	1/2 per Week	2	3	1
45P	Rt. 75 (Moon Acres)	0.0385	0	0	1	1.5	0.5
43P	Rt. 70 Between Coal Preheat Tower and Slag Pile Handling	0.0375	0	0	1	1.5	0.5
63P	Rt. 70 Between #1S and New Coke Dump	0.0360	0	0	1	1.5	0.5
71P	Rt. 72 Between No. 2 BOF Filter Cake Area Entrance and Rt. 70	0.0282	0	0	1	1.5	0.5
27P	Rt. 62	0.027			3	4	2
65P	Rt. 54 Between Slag Pot Handling and Rt. 66	0.0255			2	3	1
59P	Lime Plant Truck Lobby to Pick Up Backhouse Dust and Drabbles	0.025	0	0		1.5	0.5
66P	Rt. 74 from Stockhouse to the South	0.0242	0	0		1.5	0.5
69P	Rt. 71C Between New Coke Dump and Rt. 71, by Chlorine Building	0.0195	0	0	monthly	monthly	
5P	Rt. 23	0.0159	1	1-2	2	3	1

*Recommendation based on cleaning program starting with no visible dirt on roads

Table 5: Paved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt Loading [oz/ft ²]	Existing Flushing Strategy [times per day]	Existing Sweeping Strategy [times per day]	CONTROL OPTIONS			New Sequential Sweeping Then Flushing Strategy* [up to X times per day]
					New Flushing Strategy* [up to X times per day]	New Sweeping Strategy* [up to X times per day]	OR	
33P	Rt. 56 Between Lime Plant North Entrance and Rt. 41	0.0152	1-2, Weekend	1	2	3	1	
35P	Rt. 56 Between Rt. 54 and Rt. 41	0.0147	2-4	Weekly	3	4	2	
6P	Rt. 22 Between No. 2 BOF Sludge Trailers and Railroad Tracks	0.0146	1	0	1	1.5	0.5	
23P	Rt. 45 to Briquetting	0.0137	0	0	1	1.5	0.5	
51P	Plant 4, Rt. 4 Between Roll Reclamation and South End of No. 1 EAF	0.0137	0	Twice Weekly	1	1.5	0.5	
25P	Rt. 63 Between Rt. 70 and Rt. 46 to No. 4 AC Station	0.0136	0	0	1	1.5	0.5	
36P	No. 4 BOF South Access Road	0.0135	0	0	1	1.5	0.5	
40P	Rt. 71 Between Rt. 56/76 and Rt. 74	0.0130	0	0	1	1.5	0.5	
42P	Rt. 70 Between Rt. 71 and Coal Preheat Tower	0.0127	Weekly	0	1	1.5	0.5	
49P	Rt. 75 Between New Coke Dump and Slag Mountain, Behind New Coke Battery	0.0125	2-4	0	3	4	2	
67P	Rt. 71S Between New Coke Dump and No. 7 BF (Slag Haulers)	0.0122	4-8	0	4	6	2	
53P	Plant 4, Rt. 4 Between Gate and North End of Bar/Co Scrapyard	0.0096	0	Twice Weekly	0	Twice Weekly	Once Weekly	
70P	Rt. 72 Between Rt. 71/70 and No. 2 BOF Filter Cake Area Entrance	0.0091	0	0	Monthly	Monthly		
2P	Rt. 30	0.0090	Weekly	1-2	Four Times Weekly	1	0.5	
64P	Rt. 63 Between Rt. 46 and Rt. 56	0.0088	0	0	Monthly	Monthly		
27P	Rt. 45 Between Rt. 52 and the Heckett Garage	0.0081	1	1-2	1.5	2	1	

*Recommendation based on cleaning program starting with no visible dirt on roads

Table 5: Paved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt Loading [oz/ft ²]	Existing Flushing Strategy [times per day]	Existing Sweeping Strategy [times per day]	CONTROL OPTIONS			New Sequential Sweeping Then Flushing Strategy* [up to X times per day]
					New Flushing Strategy* [up to X times per day]	New Sweeping Strategy* [up to X times per day]	OR	
58P	Rt. 62 Between Rt. 60 and Rt. 61 ext	0.0090	0	0	Monthly	Monthly	Monthly	
63P	Rt. 44 From Rt. 40 to Rt. 42	0.0070	0	1	0	1	1	
1P	Rt. 40 Southbound Lanes Between Rt. 60 and Truck Middle Gate	0.0069	Weekly	1-2	Four Times Weekly	1	1	0.5
28P	Rt. 52 Between Rt. 56 and Scrap Inspection Facility	0.0068	1	1-2	1-2	2	2	1
9P	Rt. 43 Between Rt. 40 and Rt. 23 at Railroad Tracks	0.0067	3-6	1-2	3	4	4	2
44P	Rt. 71 Between New Coke Dump and West End of Rt. 75	0.0065	2-4	0	2	3	3	1
73P	PCI Road from Rt. 70	0.0057	1	0	Three Times Weekly	Four Times Weekly	Twice Weekly	
16P	Rt. 61 ext. Between Rt. 61 and Rt. 62	0.0053	0	0	Monthly	Monthly	Monthly	
38P	Rt. 56 Between Rt. 54 and Rt. 76	0.0052	2-4	Weekly	2	3	3	1
61P	Rt. 20	0.0051	0	0	Monthly	Monthly	Monthly	
22P	Rt. 42 Between Rt. 44 and No. 1 Cold Strip	0.0049	0	0	Monthly	Monthly	Monthly	
48P	Rt. 40 Between Rt. 45 and Rt. 46/42/63	0.0049	6-10	1-2	4	6	6	2
62P	Rt. 46 Between Rt. 40 and Rt. 52	0.0049	1	1-2	1	1.5	1.5	0.5
46P	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	0.0046	2-4	0	2	3	3	1
11P	Rt. 40 Between Rt. 43 and Rt. 50	0.0043	3-6	1-2	2	3	3	1
34P	Rt. 40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	0.0041	Weekly	1-2	Twice Weekly	Three Times Weekly	Weekly	

*Recommendation based on cleaning program starting with no visible dirt on roads

Table 5: Paved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt Loading [oz/ft ²]	Existing Flushing Strategy [times per day]	Existing Sweeping Strategy [times per day]	CONTROL OPTIONS		
					New Flushing Strategy* [up to X times per day]	New Sweeping Strategy* [up to X times per day]	New Sequential Sweeping Then Flushing Strategy* [up to X times per day]
57P	Propane Tank Farm Road Extension	0.0038	0	1	Twice Weekly	Three Times Weekly	Weekly
32P	Rt. 56 Between Rt. 50/52 and Little Plant North Entrance	0.0037	1-2, Weekend	Weekly	1	1.5	0.5
29P	Rt. 52 Between Scrap Inspection Facility and Rt. 46	0.0034	1	1-2	1	1.5	0.5
54P	Plant 1 Roads	0.0034	0	Twice Weekly	Weekly	Twice Weekly	Twice Monthly
20P	Rt. 64 Between Propane Tank Farm Road and Rt. 60	0.0034	Weekly	1-2	Three Times Weekly	Four Times Weekly	Twice Weekly
18P	Rt. 60 Between Rt. 62 and Rt. 63/64	0.0033	Weekly	1-2	Three Times Weekly	Four Times Weekly	Twice Weekly
58P	Propane Tank Farm Road Between S&L Parking Lot and Rt. 64	0.0032	1	1-2	1	1.5	0.5
14P	Rt. 61 Between Rt. 60 and the Quality Control/Deep Well Intersector	0.0030	Twice Weekly	1-2	Four Times Weekly	1	Twice Weekly
59P	Rt. 62 Between Rt. 60 and the Quality Control/Deep Well Intersector	0.0028	1	1	1	1	1
31P	Rt. 60 Between Sweeping Street and Rt. 64	0.0027	1	1	1	1	1
106P	Rt. 60 Between Rt. 62 and Rt. 64	0.0027	1	1	1	1	1
122P	Rt. 60 Between Rt. 62 and Rt. 64	0.0027	1	1	1	1	1
53P	Rt. 60 Between Main Road and the Quality Control/Deep Well Intersector	0.0027	Weekly	1	1	1	1
20P	Rt. 60 Between Rt. 60 and the Quality Control/Deep Well Intersector	0.0025	1-2, Weekend	1	1	1	1
19P	Rt. 60 Between Rt. 60 and the Quality Control/Deep Well Intersector	0.0025	1	1	1	1	1
55P	Propane Tank Farm Road Between Rt. 60/62 and the Quality Control/Deep Well Intersector	0.0025	1	1	1	1	1

*Recommendation based on cleaning program starting with no visible dirt on roads

Table 5: Paved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Paved Road Segment Description	Silt Loading [oz/ft ²]	Existing Flushing Strategy [times per day]	Existing Sweeping Strategy [times per day]	CONTROL OPTIONS		
					New Flushing Strategy* [up to X times per day]	New Sweeping Strategy* [up to X times per day]	New Sequential Sweeping Then Flushing Strategy* [up to X times per day]
59F	Between 10th and 11th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
60	Between 11th and 12th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
24P	Between 12th and 13th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
10F	Between 13th and 14th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
39	Between 14th and 15th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
10P	Between 15th and 16th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
57P	Between 16th and 17th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
11P	Between 17th and 18th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly
4P	Between 18th and 19th Streets	1000	Weekly	Weekly	Weekly	Weekly	Weekly

Indicates Satisfactory
 Indicates Possible 20% Reduction
 Indicates Possible 35% Reduction

Generated By: IBM
 Checked By: KRC

*Recommendation based on cleaning program starting with no visible dirt on roads
 IDEMplan.xls.5. Paved Road Control

Table 6: Unpaved Road Segment Control Strategy Summary
Ispat Inland Inc.
East Chicago, Indiana
Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Unpaved Road Segment Description	Yearly Vehicle Passes	Existing Dust Suppressant Strategy [times per year]	Existing Watering Strategy	Suggested New Dust Suppressant Strategy [up to X times per year]	New Watering Strategy
75U	No. 7 BF Slag Road (Rt. 73) Around Front of Slag Quench Pits	34417	3	Once, 7am-3pm turn	6	-
76U	No. 7 BF East Baghouse Road Between East Baghouse and No. 5 Boilerhouse	1841	0	none	1	-
74U	Road Between Rt. 75 Through Blending Area to Fritz Area	7305	0	none	2	-
81U	Unpaved Part of Moon Acres Rd (Rt. 75)	3617	0	none	2	-
80U	Plant 4, Rt. 4, Unpaved Section Between South End of the Bar Co. Scrapyard and North End of the Bar Co. Scrapyard	61748	0	none	4	-
79U	No. 2 Ore Dock Road	27244	0	3-6 times per day	2 before winter	Same
77U	Extension of No. 7 BF East Baghouse Road from No. 5 Boilerhouse to Rt. 71	73596	0	none	4	-
78U	Unpaved Coil Storage Area b	7305	9	none	4*	-
82U	Periodic Rubble Road					

* Based on maintaining <5% opacity to minimize fallout on coils

Generated By: IBM
 Checked By: KRC

12/29/1999

IDEMplan.xls.6. Unpaved Road Control

Table 7: Exposed Area Control Strategy Summary

Ispat Inland Inc.
 East Chicago, Indiana

Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Map Identification	Exposed Area Location Description	Existing Dust Suppressant Application Frequency	New Dust Suppressant Application Strategy [up to]
3E	Just South of 80" Hot Strip and Deep Well	once a year	once a year
4E	Sinter Plant Area	none	as needed
6E	Coal Finis Area North of No. 4 AC	none	as needed
7E	Open area Northeast of 7BF and Southwest to West of #5 Boilerhouse	twice a year	twice a year
9E	Around Piles at Lime Blend Dust Area, Near Flyash Lagoon	none	as needed
12E	Traffic Areas Around Piles at Blending Area	none	twice a year*

*Dust suppressant is recommended at traffic areas around piles at blending area due to chronic trackout

Generated By: TBM

Checked By: KRC

Table 8: Net Change In Fugitive PM₁₀ Emissions

Ispat Inland Inc.

East Chicago, Indiana

Law Engineering and Environmental Services, Inc. Project 12000-9-0112

Source Category	Previous Plan PM ₁₀ Emissions [ton/yr]	This Plan PM ₁₀ Emissions [ton/yr]	Difference [ton/yr]	Reason for Change
Paved Roads	2,150.0	723.8	-1,426.2	Enhanced Control
Unpaved Roads	135.0	42.9	-92.1	Enhanced Control
Material Handling Operations	36.4	113.6	+77.3	Enhanced Inventory Methodology
Exposed Area Wind Erosion	0.4	116.9	+116.5	Enhanced Inventory Methodology
Storage Pile Wind Erosion	8.4	27.6	+19.2	Enhanced Inventory Methodology
Totals	2,330.1	1,024.9	-1,305.2	

Generated By: IBM
 Checked By: KRC

12/29/1999

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a
Part 70 Permit**

Source Description and Location	
--	--

Source Name:	Chief Excavation Inc., an on-site contractor of Mittal Steel USA Inc.
Source Location:	3210 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	5052
Part 70 Operating Permit No.:	089-23267-05267
Permit Reviewer:	Jenny Acker

Source Definition

Mittal Steel USA Inc. is an integrated steel mill that consists of a main mill and on-site contractors:

- (a) Mittal Steel USA Inc. (plant ID 089-00316), the primary operation, is located at 3210 Watling Street, East Chicago, IN 46312, and
- (b) Chief Excavation Inc. (plant ID 089-05267), a stationary on-site contractor, is located at 3210 Watling Street, East Chicago, IN 46312.

In order to determine whether these two sources should be included in the same Part 70 source, IDEM must determine if they meet the definition of a major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

- (1) the plants must be under common control;
- (2) the plants must have the same Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on contiguous or adjacent properties.

In 1996, IDEM adopted nonrule policy document Air-006-NPD, titled "Title V Permitting Issues: On-Site Contractors" regarding the definition of major source. Air-006-NPD is available at <http://www.in.gov/idem/rules/policies/#airpend> on IDEM's website. This guidance document states that if an on-site contractor provides a majority of its goods or services to a primary source, the contractor should be included as part of the primary source for Title V (Part 70) permitting purposes. Chief Excavation Inc. provides a majority, and usually all, of its services directly to Mittal Steel USA Inc. Therefore, IDEM has determined that Mittal Steel USA Inc. and Chief Excavation Inc. are part of the same major source. Therefore, the term "source" in the Part 70 permit documents includes Mittal Steel USA Inc. and Chief Excavation Inc.

Separate Part 70 permits will be issued to Mittal Steel USA Inc. and Chief Excavation Inc., solely for administrative purposes. Mittal Steel USA Inc., was issued Part 70 Operating Permit No. 089-6577-00316 on September 12, 2006. Chief Excavation Inc, will be issued Part 70 Operating Permit 089-23267-05267.

Existing Approvals

The source was constructed under the following previous approval:

Minor Source Modification 089-22975-05267 issued on July 7, 2006.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (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 ozone. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) On August 7, 2006, a temporary emergency rule took effect revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate these changes into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule. Therefore, Lake County is no longer subject to the 1-hour ozone standard.
- (c) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (d) Lake County has been classified as attainment or unclassifiable for PM₁₀, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (e) Since the primary source is classified as a steel mill plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

- (f) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, 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

- (a) This existing primary 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 one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing primary source is a major stationary source under Emission Offset (326 IAC 2-3) because NO_x and VOC, regulated nonattainment pollutants, are emitted at a rate of 100 tons per year or more, respectively.
- (c) These emissions are based upon Minor Source Modification (089-16966-00316) issued to Ispat Inland Inc. (which has been renamed as Mittal Steel USA Inc.).

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

HAPs	Potential To Emit (tons/year)
Any Single HAP	Greater than 10
Combined HAPs	Greater than 25

This existing primary source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

No previous emission data has been received from Chief Excavation Inc. (Plt ID 089-05267).

Description of Proposed Project
--

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit application, submitted by Chief Excavation Inc. on June 26, 2006, relating to the operation of an iron ore pellet material

handling, and primary and fines screening operation. The following is a list of the emission units permitted for construction under Minor Source Modification 089-22975-05267:

- (a) One (1) screening unit, approved for construction in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen, for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower. Under 40 CFR 60, Subpart IIII, this unit is considered a Model Year (MY) 2007 or later engine with a displacement less than 10 liters per cylinder.
- (b) Stockpiles.
- (c) Paved and unpaved roadways.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – PSD or Emission Offset

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

Process/Emission Unit	Potential to Emit (tons/year)					
	PM	PM10	SO ₂	VOC	CO	NO _x
Screening and Fugitive Emissions	24.03	6.34	--	--	--	--
Combustion Engines	0.94	0.94	0.88	1.06	2.87	13.31
Total for Modification	24.97	7.28	0.88	1.06	2.87	13.31
Significant Level	25	15	40	40	100	40

The operation of this iron ore pellet material handling, and primary and fines screening operation at an existing major source is not major because the emissions are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

The operation of this iron ore pellet material handling, and primary and fines screening operation at an existing major source is not major because the emissions are less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Lake County has been designated as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM_{2.5} Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM_{2.5} major NSR regulations, states should assume that a major stationary source's PM₁₀ emissions represent PM_{2.5} emissions. IDEM will use the PM₁₀ nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM_{2.5} NAAQS. Significant emissions would be the potential to emit of fifteen (15) tons per year or greater of PM₁₀. Chief Excavation Inc. has limited the potential to emit of PM₁₀ to less than fifteen (15) tons per year. Therefore, assuming that PM₁₀ emissions represent PM_{2.5} emissions, 326 IAC 2-3 does not apply for PM_{2.5}.

Since this source is considered a major PSD source and Emission Offset source and the unrestricted potential to emit is greater than twenty-five (25) tons of PM per year and fifteen (15) tons of PM₁₀ per year, this source has elected to limit the potential to emit as follows:

- (a) The input of iron ore pellets to the primary and fines screening and conveying plant shall not exceed 228,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will ensure that particulate matter emissions from the entire screening plant are less than 25 tons per year and that emissions of particulate matter less than ten (10) micron size diameter are less than 15 tons per year, including fugitives. Compliance with this limit renders the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

Federal Rule Applicability Determination

- (a) The provisions of 40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines apply to manufacturers, owners, and operators of stationary compression ignition internal combustion engines for engines manufactured after the applicable dates cited in 40 CFR 60, Subpart IIII. This rule applies to the following proposed emission units:
 - One (1) internal combustion diesel generator rated at 98 horsepower. Under 40 CFR 60, Subpart IIII, this unit is considered a Model Year (MY) 2007 or later engine with a displacement less than 10 liters per cylinder.

Nonapplicable portions of the NSPS will not be included in the permit. The proposed diesel generator is subject to the following portions of 40 CFR 60, Subpart IIII.

40 CFR 60.4200(a)(2)(i)
40 CFR 60.4201(a)
40 CFR 60.4204(b)
40 CFR 60.4206
40 CFR 60.4207 (a), (b), and (c)
40 CFR 60.4208 (a), (b), (g), and (h)
40 CFR 60.4209(b)
40 CFR 60.4211 (a) and (c)
40 CFR 60.4214(c)
40 CFR 60.4218
40 CFR 60.4219

Table 8 to Subpart IIII of Part 60 – Applicability of General Provision to Subpart IIII

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the diesel generator, except when otherwise specified in 40 CFR 60, Subpart IIII.

- (b) This screening plant is not subject to the requirements of the New Source Performance Standards for Non-Metallic Mineral Processing Plants, 40 CFR 60.670 through 60.676, Subpart OOO, since crushing does not occur as part of the operation.
- (c) The internal combustion engine is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63.6580 through 63.6675, Subpart ZZZZ, since it is rated at less than 500 brake horsepower.
- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and,
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The source has elected to limit the fines screening unit, which has a potential to emit PM and PM10 above major source thresholds, to below major source thresholds; however, a control device will not be used to comply with the emission limitation.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of screening plant will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). The source also has potential to emit greater than or equal to 250 tons per year of particulate matter less than or equal to ten (10) micrometers (PM10); therefore, an emission statement covering the previous calendar year must be submitted by July 1 annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

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

or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3 Particulate Matter Limitations for Manufacturing Operations

The source is not subject to the requirements of 326 IAC 6-3, because the plant is subject to the requirements of 326 IAC 6.8-1 (formerly 326 IAC 6-1) (Nonattainment Particulate Emissions Limitations). Pursuant to the applicability requirements 326 IAC 6-3-1(b), if any limitation established by this rule is inconsistent with applicable limitations contained in 326 IAC 6.8-1 (formerly 326 IAC 6-1) (Nonattainment Particulate Emissions Limitations) or 326 IAC 12 (New Source Performance Standards), then the limitations contained in 326 IAC 6.8-1 or 326 IAC 12 prevail.

326 IAC 6-4 Fugitive Dust Emissions

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.

326 IAC 6.8-1-2(g) Particulate Emissions Limitations

Pursuant to 326 IAC 6.8-1-2(g), the screening operations which are not totally enclosed are subject to 326 IAC 6.8-1-2(g) (formerly 326 IAC 6-1-2(g)) that requires compliance with 326 IAC 2, 326 IAC 5-1 and 326 IAC 6-4.

326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), and 326 IAC 6.8-11 (formerly 326 IAC 6-1-11.2) (Lake County Particulate Matter Contingency Measures)

The source is subject to the limits in 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1), because particulate matter emissions from source wide activities are above five (5) tons per year.

- (a) Pursuant to 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:
- (1) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
 - (2) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
 - (3) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
 - (4) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
 - (5) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
 - (6) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
 - (7) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
 - (8) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.

- (9) The PM10 emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (10) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (11) Any facility or operation not specified in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (12) PM10 emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity
- (13) Fugitive particulate matter from the material processing facilities shall not exceed ten percent (10%) opacity
- (14) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:
 - (A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.
 - (B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)(9)).

Material processing facilities include crushers, screens, grinders, mixers, dryers, belt conveyors, bucket elevators, bagging operations, storage bins, and truck or railroad car loading stations.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted by Mittal Steel (formerly Ispat Inland Inc.), attached to this permit as Appendix A.

- (b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (formerly 326 IAC 6-1-11.2(h), (i), (k), (l), (m), (o), (p) and (q) (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1).

326 IAC 7-1.1 Sulfur Dioxide (SO₂) Emission Limitations

The source is not subject to the requirements of 326 IAC 7-1.1 Sulfur Dioxide (SO₂) Emission Limitations, because the equipment does not have the potential to emit twenty five (25) tons per year or more of SO₂.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination

Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable are as follows:

- (a) The Permittee shall use wet suppression to control emissions of PM and PM10 from the vibrating screen, conveyors, stock piles, and roads. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with 326 IAC 2-2 and 326 IAC 2-3, and to ensure that the iron ore processed has a moisture content greater than 10 percent. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the iron ore to ensure it has a moisture content equal to or greater than ten (10) percent. The method for the moisture content analysis shall be approved by IDEM, OAQ.

The compliance monitoring requirements applicable are as follows:

- (a) Visible emission notations of the material handling, and primary and fines screening operations 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- Response to Excursions or Exceedances. Failure to take response with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the material handling, and primary and fines screening operations must operate properly to ensure compliance with 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), 326 IAC 6.8-11 (Lake County Fugitive Particulate Matter Contingency Measures), 326 IAC 5-1, 326 IAC 6-4 and 326 IAC 2-7 (Part 70).

Conclusion and Recommendation

The operation of this material handling, and primary and fines screening operation shall be subject to the conditions of the attached Part 70 Operating permit. The staff recommend to the Commissioner that this **Part 70 Operating Permit No.: 089-23267-05267** be approved.

**Appendix A: Emissions Calculations
PM/PM-10 Emissions Summary**

Company Name: Chief Excavation Inc.
Part 70 Operating Permit No.: 089-23267-05267
Reviewer: Jenny Acker
Date: 9/25/2006

<u>** PM emissions before controls and limitations**</u>							
Transporting							97.25 tons/yr
Storage Piles							2.06 tons/yr
¹⁾ Loading & Unloading ore	2,628,000	ton/yr x	0.0088	lb PM/ton	*1/2000	ton/lb	11.56 tons/yr
²⁾ Screening - Primary	2,628,000	ton/yr x	0.025	lb PM/ton	*1/2000	ton/lb	32.85 tons/yr
²⁾ Screening - Fines	2,628,000	ton/yr x	0.3	lb PM/ton	*1/2000	ton/lb	394.20 tons/yr
³⁾ Conveyor Transfer	2,628,000	ton/yr x	0.003	lb PM/ton	*1/2000	ton/lb	3.94 tons/yr
<i>Total Screening Emission Before Controls and Limitations:</i>							541.86 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total Emission Before Controls and Limitations:							542.80

<u>** PM-10 emissions before controls and limitations**</u>							
Transporting							24.78 tons/yr
Storage Piles							1.52 tons/yr
¹⁾ Loading & Unloading Ore	2,628,000	ton/yr x	0.0043	lb PM10/ton	*1/2000	ton/lb	5.65 tons/yr
²⁾ Screening - Primary	2,628,000	ton/yr x	0.0087	lb PM10/ton	*1/2000	ton/lb	11.43 tons/yr
²⁾ Screening - Fines	2,628,000	ton/yr x	0.072	lb PM10/ton	*1/2000	ton/lb	94.61 tons/yr
³⁾ Conveyor Transfer	2,628,000	ton/yr x	0.0011	lb PM10/ton	*1/2000	ton/lb	1.45 tons/yr
<i>Total Screening Emission Before Controls and Limitations:</i>							139.44 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total Emission Before Controls and Limitations:							140.38

<u>** PM emissions after controls and limitations**</u>							
Transporting				50% emitted after controls			4.22 tons/yr
Storage Piles				10% emitted after controls			0.11 tons/yr
¹⁾ Loading & Unloading Ore	228,000	ton/yr x		100% emitted after controls			1.00 tons/yr
²⁾ Screening - Primary	228,000	ton/yr x		50% emitted after controls			1.43 tons/yr
²⁾ Screening - Fines	228,000	ton/yr x		50% emitted after controls			17.10 tons/yr
³⁾ Conveyor Transfer	228,000	ton/yr x		50% emitted after controls			0.17 tons/yr
<i>Total Screening Emission After Controls and Limitations:</i>							24.03 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total PM Emission After Controls and Limitations:							24.97

<u>** PM-10 emissions after controls and limitations**</u>							
Transporting				50% emitted after controls			1.08 tons/yr
Storage				10% emitted after controls			0.11 tons/yr
¹⁾ Loading & Unloading Ore	228,000	ton/yr x		100% emitted after controls			0.49 tons/yr
²⁾ Screening - Primary	228,000	ton/yr x		50% emitted after controls			0.50 tons/yr
²⁾ Screening - Fines	228,000	ton/yr x		50% emitted after controls			4.10 tons/yr
³⁾ Conveyor Transfer	228,000	ton/yr x		50% emitted after controls			0.06 tons/yr
<i>Total Screening Emission After Controls and Limitations:</i>							6.34 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total PM10 Emission After Controls and Limitations:							7.28

PM Fugitive Emissions (lb/ton of ore throughput): 0.21
PM10 Fugitive Emissions (lb/ton of ore throughput): 0.05

Methodology

- ¹⁾ The uncontrolled emission factor for the loading and unloading is the one for low silt batch drop from iron and steel mills. (AP-42, Chapter 12.5, Table 12.5.4 (10/86)).
- ²⁾ Uncontrolled emission factor for fines screening from AP-42, Chapter 11.19.2 (Crushed Stone Processing Operations), Table 11.19.2-2 (08-04). 2 screening units are included in the calculation to account for the double deck design.
- ³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 11.19.2 (Crushed Stone Processing Operations), Table 11.19.2-2 (08-04)

**Appendix A: Emissions Calculations
PM Emissions Calculations
Unpaved Roads**

Company Name: Chief Excavation Inc.
Part 70 Operating Permit No.: 089-23267-05267
Reviewer: Jenny Acker
Date: 9/25/2006

* * unpaved roads * *

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
2,628,000	8	328,500	0.1	32850.00	15.00

Estimated Maximum Production - Limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
228,000	8	28,500	0.1	2850.00	15.00

Pollutant	Emission Factor (E)	Emissions (uncontrolled)	Emissions (controlled) (tpy)
PM	5.92	97.25	8.44
PM10	1.51	24.78	2.15

The following calculation determines the amount of emissions created by unpaved roads, Equation and values from AP-42 Chp. 13.2.2 (Fifth Edition, 12/03)

Eq. 1a: $E = k * [(s/12)^a] * [(W/3)^b]$
 where E = calc. site specific emission factor (lb/VMT)
 k = particle size multiplier (k=4.9 for PM-30 or TSP, k=1.5 for PM-10)
 s = 4.8 mean % silt content of unpaved roads (provide by source)
 a = empirical constant (a= 0.7 for PM-30 or TSP, a=0.9 for PM-10)
 b = empirical constant (b= 0.45 for PM-30 or TSP and PM-10)
 W = 19 mean vehicle weight (tons)

Methodology

PM Emissions (tpy) = PM Emission Factor (E) * Vehicle Miles Traveled /yr/2000
 PM10 Emissions (tpy) = PM10 Emission Factor (E) * Vehicle Miles Traveled /yr/2000

**Appendix A: Emissions Calculations
PM Emissions from Material Handling**

Company Name: Chief Excavation Inc.
Part 70 Operating Permit No.: 089-23267-05267
Reviewer: Jenny Acker
Date: 9/25/2006

Fugitive Emissions from Storage Piles

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 \cdot (s/1.5)^{0.365} \cdot (365-p)/235 \cdot (f/15)$$

= 5.67 lb/acre/day

where s = 4.9 % silt content of material
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

Storage capacity (sc) of site (tons) = (# acres) * (43560 sqft/acre) * (25 ft high) * (1/40 ton/cuft)
Storage capacity (sc) of site (tons) = 27281.25
where site area (acres) = 1

$$E_p(\text{storage}) = E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr})$$

= 1.04 tons/yr

from truck loading, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

Truck Loading Operations Disturbance of Storage Piles

$$E = k \cdot (0.0032)^{0.365} \cdot (U/5)^{1.3} / ((M/2)^{1.4})$$

where k = particle size multiplier (k=0.74 for PM, k=0.35 for PM-10)
U = 12 mile/hr mean wind speed
M = 10 % material moisture content

Emission Factor (E) PM = 7.764E-04
Emission Factor (E) PM-10 = 3.672E-04

PM Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM
PM-10 Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM-10
Unlimited Throughput 2628000
Thoroughput Limit 228,000

PM Emissions-No Limit (tpy) = 1.02
PM-10 Emissions-No Limit (tpy) = 0.48

PM Emissions-Limited (tpy) = 0.09
PM-10 Emissions-Limited (tpy) = 0.04

Total Emissions from Storage Piles With no Limit	
PM	2.06
PM-10	1.52

Total Emissions from Storage Piles With Limited Throughput	
PM	1.13
PM-10	1.08

**Appendix A: Emissions Calculations
Internal Combustion Engines - Diesel Fuel
<250 Hp Reciprocating**

Company Name: Chief Excavation Inc.
Part 70 Operating Permit No.: 089-23267-05267
Reviewer: Jenny Acker
Date: 9/25/2006

	Output (hp)	8760 hp-hr/yr
Diesel Engine	98.0	858480

	Pollutant					
Emission Factor in lb/hp-hr	PM*	PM10*	SO2	NOx	VOC	CO
	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Potential Emission in tons/yr Diesel Engine	0.94	0.94	0.88	13.31	1.06	2.87

Methodology

hp-hr/yr = hp * 8760 hr/yr

Emission Factors are from AP 42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01

Emission (tons/yr) = (hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton