



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
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TO: Interested Parties / Applicant
DATE: April 29, 2009
RE: Tube City IMS / 089-26806-00536
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, 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, Suite N 501E, 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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
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Part 70 Operating Permit OFFICE OF AIR QUALITY

**Tube City IMS
3236 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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions

Operation Permit No.: T089-26806-00536	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 29, 2009 Expiration Date: April 29, 2014

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 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]
- A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

B. GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]
- B.3 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.4 Term of Conditions [326 IAC 2-1.1-9.5]
- B.5 Enforceability [326 IAC 2-7-7] [IC 13-17-12]
- B.6 Severability [326 IAC 2-7-5(5)]
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.8 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.9 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
- B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.11 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.12 Emergency Provisions [326 IAC 2-7-16]
- B.13 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
- 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 2-7-3][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]
- 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]
- 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 CONDITION

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

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

C.8 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

C.10 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.11 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

C.12 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.13 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.14 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]
[326 IAC 2-3]

C.15 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.16 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1. EMISSIONS UNIT OPERATION CONDITIONS

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

D.1.1 Particulate Emission Limitations [326 IAC 6.8-1-2]

D.1.2 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

D.1.3 PM/PM10 and PM2.5 Prevention of Significant Deterioration (PSD) [326 IAC 2-2] and
Nonattainment NSR Minor Limits [326 IAC 2-1.1.5]

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

D.1.6 Continuous Compliance Plan [326 IAC 6.8-8]

D.1.7 PM and PM10 Control

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

D.1.8 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.1.9 Baghouse Parametric Monitoring

D.1.10 Broken or Failed Bag Detection

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

D.1.11 Record Keeping Requirement

D.1.12 Reporting Requirements

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

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

- D.2.1 Particulate Emission Limitations [326 IAC 6.8-1-2]
- D.2.2 Record Keeping Requirements

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

- E.1.1 General Provisions Relating to NSPS IIII [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 IIII]

Certification

Emergency Occurrence Report

Quarterly Deviation and Compliance Monitoring Report

Fugitive Dust Control Plan (Attachment A)

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 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 slag and kish processing.

Source Address:	3236 Watling Street, East Chicago, Indiana 46312
Mailing Address:	1155 Business Center Drive, Horsham, PA 19044
General Source Phone Number:	(215) 956-5618
SIC Code:	7389
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard and PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD, Emission Offset Rules and Nonattainment NSR Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

The source Tube City IMS is a contractor for ArcelorMittal USA, Inc. Plant ID 089-00316, an integrated steel mill and is collocated with the following on-site contractors:

- (a) ArcelorMittal USA, Inc. (Plant ID 089-00316), the primary operation, is located at, 3210 Watling Street, East Chicago, Indiana;
- (b) Fritz Enterprises Inc. (Plant ID 089-00465), the on-site contractor (an iron and steel recycling process and a coke screening plant), is located at 3210 Watling Street, East Chicago, Indiana;
- (c) Beemsterboer Slag and Ballast Corp. (Plant ID 089-00356), the on-site contractor (a slag crushing and sizing operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (d) East Chicago Recovery (Plant ID 089-00358), the on-site contractor (a briquetting facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (e) Oil Technology (Plant ID 089-00369), the on-site contractor (a used oil recycling facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (f) Mid Continent Coal and Coke (Plant ID 089-00371), the on-site contractor (a metallurgical coke separation facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (g) Indiana Harbor Coke Company (IHCC) (Plant ID 089-00382), the on-site contractor (a heat recovery coal carbonization facility), is located at 3210 Watling Street, East Chicago, Indiana 46312;

- (h) Cokenergy, Inc. (Plant ID 089-00383), the on-site contractor (a heated gas steam from coal carbonization operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (i) LAFARGE North America (Plant ID 089-00458), the on-site contractor (a slag granulator and pelletizer operation), is located at 3210 Watling Street, East Chicago, Indiana; and
- (j) MultiServ (Plant ID 089-00367), the on-site contractor (a scarfing plant and slag boat loading operation), is located at 3236 Watling Street, East Chicago, Indiana.

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

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

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

This source consists of the following emission units and pollution control devices:

Slag/kish, scrap, slag crushing and sizing processing plant with a combined limited throughput of 1,620,000 tons of slag/kish per hour, controlled by water suppression, consisting of the following:

- (1) Forty-eight (48) conveyors;
- (2) Two (2) double deck screens;
- (3) Four (4) triple deck screens;
- (4) Three (3) crushers;
- (5) Two (2) feeders;

- (6) Three (3) MAG head pulleys;
- (7) One (1) splitter box; and
- (8) One (1) electro magnet

These emissions units at the slag/kish, scrap, slag crushing and sizing plant will be powered by electricity, and no emission unit will be powered by diesel or other types of fuel, except for the natural gas used in the oxymethane flame cutting of scrap.

- (b) Scrap Cutting Operation consisting of the following:
 - (1) Twelve (12) oxymethane flame cutting stations with a total maximum cutting rate of 15 inches/minute using natural gas fuel at maximum of 2.75 million cubic feet per year (0.32 million British thermal units per hour (MMBtu/hr)), all stations controlled by one (1) baghouse.

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

This source consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21) with specifically regulated insignificant activities identified in Section D.2:

Water related activities including:

- (a) Production of hot water for on-site personal use not related to any industrial or production process.
- (b) Water treatment activities used to provide potable and process water for the plant excluding any activities associated with wastewater treatment.
- (c) Steam cleaning operations and steam sterilizers.
- (d) Pressure washing of equipment.

Combustion activities including the following:

- (a) Portable electrical generators that can be moved by hand from one location to another. "Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
- (b) Fuel use related to food preparation for on-site consumption.
- (c) Tobacco smoking rooms and areas.
- (d) Indoors and outdoor kerosene heaters.

Activities related to ventilation, venting equipment and refrigeration, including the following:

- (a) Ventilation exhaust, central chiller water systems, refrigeration and air conditioning equipment, not related to any industrial or production process, including natural draft hoods or ventilating systems that do not remove air pollutants.
- (b) Vents for air cooling of electric motors provided the air does not commingle with regulated air pollutants.

Activities related to routine fabrication, maintenance and repair of buildings, structures, equipment or vehicles at the source where air emissions from those activities would not be associated with any commercial production process including the following:

- (a) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both, of parking lots and roadways.
- (b) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents.
- (c) Batteries and battery charging stations, except at battery manufacturing plants.
- (d) Lubrication, including hand-held spray can lubrication, dipping metal parts into lubricating oil, and manual or automated addition of cutting oil in machining operation.
- (e) Manual tank gauging

Housekeeping and janitorial activities and supplies including the following:

- (a) Vacuum cleaning systems used exclusively for housekeeping or custodial activities, or both.
- (b) Rest rooms associated cleanup operations and supplies.

Office related activities including the following:

- (a) Office supplies and equipment.
- (b) Photocopying equipment and associated supplies.
- (c) Paper shredding.
- (d) Blueprint machines, photographic equipment and associated supplies

Storage equipment and activities including:

- (a) Storage of the following:
 - (1) Lance rods.

Emergency and standby equipment including:

- (a) Safety and emergency equipment, except engine driven fire pumps, including fire suppression systems and emergency road flares.

Sampling and testing equipment and activities including the following:

- (a) Hydraulic and hydrostatic testing equipment.

Activities generating limited amount of fugitive dust including:

- (a) Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes under 326 IAC 2-7-1(22)(B) and any required fugitive dust control plan or its equivalent is submitted.

Miscellaneous equipment, but not emissions associated with the process for which the equipment is used, and activities including the following:

- (a) Manual loading and unloading operations.

Combustion related activities, including the following:

- (a) Space heaters, process heaters, or boilers using the following fuels:
 - (1) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths percent (0.5%) sulfur by weight.

The source will use two (2) direct fired space heaters each with a input capacity of 500,000 Btu/hour.

Fuel dispensing activities, including the following:

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks maybe in a fixed location or on mobile equipment.
- (b) A petroleum fuel, other than gasoline dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons and dispensing three thousand five hundred (3,500) gallons per day or less.

The following VOC and HAP storage containers:

- (a) Storage tanks with capacity less than one thousand (1,000) gallons and annual throughput less than twelve thousand (12,000) gallons.
- (b) Vessels storing the following:
 - (1) Hydraulic oils.
 - (2) Lubricating oils
 - (3) Machining oils
 - (4) Machining fluids

Equipment used exclusively for the following:

- (a) Filling drums, pails or other packaging containers with the following:
 - (1) Greases
 - (2) Lubricating oils

Production related activities, including the following:

- (a) Application of the following as temporary protective coatings:
 - (1) Greases
 - (2) Lubricants

Water-based activities, including the following:

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

Repair activities, including the following:

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

Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

- (a) Catch tanks
- (b) Temporary liquid separators
- (c) Tanks
- (e) Fluid Handling equipment

Activities associated with emergencies, including the following:

- (a) Diesel generator not exceeding one thousand six hundred (1,600) horsepower.
The source will utilize one (1) 450 horsepower diesel generator.

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

This 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 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 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, T089-26806-00536, 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.4 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.5 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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.6 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.7 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.8 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.9 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) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;

- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.11 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 or ninety (90) days after initial start-up, whichever is later, 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 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 phone: (219) 757-0265; fax: (219) 757-0267.
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:
 - (A) A description of the emergency;
 - (B) Any steps taken to mitigate the emissions; and
 - (C) Corrective actions taken.The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
 - (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

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

B.13 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.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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

(b) Notwithstanding 326 IAC 2-7-12(b)(1) 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

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

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

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

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

- (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 and/or 326 IAC 2-3.

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 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.3 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.4 Fugitive Dust Emissions [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) 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.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) 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.
- (g) 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%).
- (h) 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.
- (i) 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.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten

percent (10%).

- (k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 2, 2008. The plan is included as Attachment A.

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

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

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

C.6 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ 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.7 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.8 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 or ninety (90) days of initial start-up, whichever is later. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

C.9 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.10 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.11 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.12 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 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.13 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
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]
[326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial startup, whichever is later.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
- (i) Baseline actual emissions;
- (ii) Projected actual emissions;
- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
- (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.15 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial startup, whichever is later, 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 (d) 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 (II)) 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 (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

C.16 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

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

- (a) Slag/kish, scrap, slag crushing and sizing processing plant with a combined limited throughput of 1,620,000 tons of slag/kish per hour, controlled by water suppression, consisting of the following:
- (1) Forty-eight (48) conveyors;
 - (2) Two (2) double deck screens;
 - (3) Four (4) triple deck screens;
 - (4) Three (3) crushers;
 - (5) Two (2) feeders;
 - (6) Three (3) MAG head pulleys;
 - (7) One (1) splitter box; and
 - (8) One (1) electro magnet

These emissions units at the slag/kish, scrap, slag crushing and sizing plant will be powered by electricity, and no emission unit will be powered by diesel or other types of fuel, except for the natural gas used in the oxymethane flame cutting of scrap.

- (b) Scrap Cutting Operation consisting of the following:
- (1) Twelve (12) oxymethane flame cutting stations with a total maximum cutting rate of 15 inches/minute using natural gas fuel at maximum of 2.75 million cubic feet per year (0.32 million British thermal units per hour (MMBtu/hr)), all stations controlled by one (1) baghouse.

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

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

D.1.1 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from each feeder, crusher, screen, hopper, conveyor and oxymethane flame cutting operation shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per standard cubic foot (g/dscf).

D.1.2 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the oxymethane flame cutting operation shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from the baghouse associated with the oxymethane flame cutting operation shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.1.3 PM/PM10 and PM2.5 Prevention of Significant Deterioration (PSD) [326 IAC 2-2] and Nonattainment NSR Minor Limits [326 IAC 2-1.1.5]

- (a) The source shall be limited to process a combined total of 1,620,000 tons of slag/kuh per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The ferrous recovery plants (BOF#2 and BOF#4) and the portable ferrous recovery plant, from MultiServ shall be shutdown permanently prior to the operation of the Tube City IMS plant and must be dismantled within twenty-four (24) months upon start-up of operation of the Tube City IMS plant. The MultiServ plants shutdown shall account for the PM and PM10 emissions reduction of 34.96 tons/year and 13 tons/year, respectively, to reduce emissions from the Tube City IMS plant to less than 25 tons/year of PM and less than 15 tons/year of PM10.
- (c) The PM10 and PM2.5 emissions from the oxymethane flame cutting operation shall be limited to 1.41 pound per hour and 1.41 pound per hour, respectively.

Compliance with (a) through (c) of this condition in conjunction with the limit in Section D.2 shall render 326 IAC 2-2, Prevention of Significant Deterioration not applicable to this modification, new Tube City IMS plant with respect to PM and PM10 emissions. Compliance with this condition in conjunction with the limit in Section D.2 shall also render 326 IAC 2-1.1-5, Nonattainment NSR not applicable for PM2.5.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.1.5 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the limits in Conditions D.1.1, D.1.2 and D.1.3 for the oxymethane flame cutting operation, the Permittee shall perform PM/PM10 and PM2.5 testing on one (1) baghouse associated with the oxymethane flame cutting operation within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008 or within 180 days of achieving normal operation of the oxy-methane flame cutting operation, whichever comes later. This testing shall be conducted utilizing methods as approved by the Commissioner.

The PM/PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

D.1.6 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant in accordance with the Continuous Compliance Plan (CCP). The Permittee shall maintain at the source a copy of the Continuous Compliance Plan (CCP) submitted to IDEM on September 2, 2008. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP

to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.

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

D.1.7 PM and PM10 Control

In order to comply with Conditions D.1.1, D.1.2 and D.1.3,

- (a) the Permittee shall apply water or use wet suppression system on an as needed basis to the slag aggregate stockpiles to control particulate emissions from the feeders, crushers, hoppers, screens and conveyors when processing the slag aggregate stockpiles.
- (b) the Permittee shall perform moisture content analysis on the slag aggregate stockpiles to ensure it has a moisture content greater than 3.6 percent. Samples of the slag aggregate stockpiles shall be collected quarterly and moisture content determined as a percent of the dry weight. The method for moisture content analysis shall be approved by IDEM, OAQ.
- (c) the Permittee shall minimize sourcewide PM/PM10 and PM2.5 emissions in accordance with the Fugitive Dust Control Plan (Attachment A) of this permit.
- (d) the control equipment for the oxymethane flame cutting stations shall be in operation at all times that oxymethane flame cutting operation is in operation.

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

D.1.8 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

- (a) Visible emission notations from each feeder, crusher, hopper, screen, conveyor and oxymethane flame cutting shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with oxymethane flame cutting at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation

from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.1.10 Broken or Failed Bag Detection

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

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

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

D.1.11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3, the Permittee shall maintain records of the scrap and slag/kish total throughput weight that was processed for each compliance period.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain records of the once per day visible emission notations notations from each feeder, crusher, hopper, screen, conveyor and oxymethane flame cutting and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the quarterly moisture content analysis of the slag aggregate stockpile materials.
- (d) To document compliance with Condition D.1.9, the Permittee shall maintain once per day records of the total static pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) Pursuant to 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), a quarterly report shall be submitted, stating the following:
- (1) The dates any required control measures were not implemented
 - (2) A listing of those control measures
 - (3) The reasons that the control measures were not implemented
 - (4) Any corrective action taken

These reports shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

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

Insignificant Activities:

Combustion related activities, including the following:

- (a) Space heaters, process heaters, or boilers using the following fuels:
 - (1) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths percent (0.5%) sulfur by weight.

The source will use two (2) direct fired space heaters each with a input capacity of 500,000 Btu/hour.

Fuel dispensing activities, including the following:

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks maybe in a fixed location or on mobile equipment.
- (b) A petroleum fuel, other than gasoline dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons and dispensing three thousand five hundred (3,500) gallons per day or less.

The following VOC and HAP storage containers:

- (a) Storage tanks with capacity less than one thousand (1,000) gallons and annual throughput less than twelve thousand (12,000) gallons.

Activities associated with emergencies, including the following:

- (a) Diesel generators not exceeding one thousand six hundred (1,600) horsepower.

The source will utilize one (1) 450 horsepower diesel generator.

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

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

D.2.1 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from one (1) emergency generator fired by fuel oil and each two (2) space heaters fired by waste oil shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per standard cubic foot (g/dscf).

Compliance with this limit in conjunction with the limits in Section D.1 shall render 326 IAC 2-2, Prevention of Significant Deterioration not applicable to this modification, new Tube City IMS plant with respect to PM and PM10 emissions. Compliance with this condition in conjunction with the limits in Section D.1 shall also render 326 IAC 2-1.1-5, Nonattainment NSR not applicable for

PM2.5.

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

D.2.2 Record Keeping Requirements

Pursuant to 326 IAC 8-9, the Permittee shall keep maintain a record and submit to the department the following information for each vessel:

- (A) The vessel identification number.
- (B) The vessel dimension.
- (C) The vessel capacity.

Records shall be maintained for the life of the vessels.

SECTION E.1

EMISSIONS UNIT OPERATION CONDITIONS

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

Insignificant Activities:

Activities associated with emergencies, including the following:

- (a) Diesel generators not exceeding one thousand six hundred (1,600) horsepower.

The source will utilize one (1) 450 horsepower diesel generator.

(The information describing the process contained in this emissions unit 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]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines) (included as Attachment B) 40 CFR 60.4200:

- 40 CFR 60.4200(a)(2)(i)
- 40 CFR 60.4202(a)(2)
- 40 CFR 60.4205(b)
- 40 CFR 60.4206
- 40 CFR 60.4207(a), (b)
- 40 CFR 60.4208(a)
- 40 CFR 60.4209
- 40 CFR 60.4211(a), (c), (e)
- 40 CFR 60.4212
- 40 CFR 60.4214(b)
- 40 CFR 60.4218
- 40 CFR 60.4219
- Table 5
- Table 8

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Tube City IMS
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: 1155 Business Center Drive, Horsham, PA 19044
Part 70 Permit No.: T089-26806-00536

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Tube City IMS
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: 1155 Business Center Drive, Horsham, PA 19044
Part 70 Permit No.: T089-26806-00536

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N 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: Tube City IMS
 Source Address: 3236 Watling Street, East Chicago, Indiana 46312
 Mailing Address: 1155 Business Center Drive, Horsham, PA 19044
 Part 70 Permit No.: T089-26806-00536

Months: _____ **to** _____ **Year:** _____

<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: Tube City IMS
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: 1155 Business Center Drive, Horsham, PA 19044
Part 70 Permit No.: T089-26806-00536
Facility: Sourcewide
Parameter: Slag/kish throughput
Limit: Combined limit of 1,620,000 tons per twelve (12) consecutive month period of slag/kish with compliance determined at the end of each month

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Slag/Kish Processed This Month	Slag/Kish Processed Previous 11 Months	Slag/Kish Processed 12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

ATTACHMENT A

TUBE CITY IMS AT ARCELORMITTAL STEEL USA INDIANA-HARBOR EAST FUGITIVE EMISSION CONTROL PLAN

INTRODUCTION

This Fugitive Emission Control Plan has been prepared to comply with Rule 10 under Article 6.8 of 326 IAC Lake County: Fugitive Particulate Matter. The Plan covers the operations of Tube City IMS which occur within the facility listed as ArcelorMittal Steel USA-Indiana Harbor East. The regulations defining the required contents of this plan are listed in 326 IAC 6.8 as follows:

326 IAC 6.8-10-4 [Control plans]

Sec. 4.

Control plans shall include the following:

- (1) Within six (6) months of June 11, 1993, a source to which this rule applies shall submit a control plan that, when fully implemented, will achieve compliance with the applicable emission limitations stated in section 3 of this rule. Failure to submit a control plan in accordance with this rule shall be considered a violation of this article. A control plan shall also be included as part of a construction permit application under 326 IAC 2-5.1.
- (2) A control plan, upon submittal to the department, shall become part of a source's operating permit or registration conditions.
- (3) The following information:
 - (A) The name and address of the following:
 - (i) The source and location, if the source is located on another source's property.
 - (ii) If different from that of the source, the owner or operator responsible for the execution of the plan.
 - (B) Identification of the facilities or operations listed in section 1(a)(1) of this rule and those affected by 326 IAC 6.8-2 through 326 IAC 6.8-7 that exist at the source.
 - (C) A map showing the location of all of the following:
 - (i) Unpaved roads.
 - (ii) Paved roads.
 - (iii) Parking lots.
 - (iv) Storage piles.
 - (v) Material processing facilities.
 - (vi) Dust handling equipment.
 - (vii) Material transfer points.

- (viii) Waste disposal and reclamation sites.
- (D) A full description of the facilities on the map, including the following information, where applicable:
 - (i) The road lengths and widths, average daily traffic, surface silt loading, classification of vehicle traffic, and other data necessary to estimate PM10 emissions from paved and unpaved roads and parking lots.
 - (ii) A description of each storage pile, including the following:
 - (AA) The type of material in the pile.
 - (BB) Its moisture content.
 - (CC) The silt content.
 - (DD) The throughput.
 - (EE) The equipment used to load onto and load out of the storage piles.
 - (iii) A complete description of the material processing facilities on the plant property, including the following:
 - (AA) A material flow diagram of the processing lines.
 - (BB) The rated capacity of each piece of equipment.
 - (CC) The existing control equipment and their efficiencies, including the process equipment served.
 - (iv) 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 section 2(13) of this rule.
 - (v) A complete description of all other fugitive particulate matter emitting facilities not covered in this clause.
- (E) The description of the proposed control measures and practices that the source will employ to achieve compliance with the emission limitations and data that prove its effectiveness.
- (F) A list of the conditions that will prevent control measures and practices from being applied and alternative control practices and measures that will achieve compliance with the emission limitations.
- (G) A schedule for achieving compliance with the provisions of the control plan. The schedule shall specify the time required to:
 - (i) award necessary contracts; and
 - (ii) begin and complete construction and installation.

Final compliance shall be achieved no later than December 10, 1993.

- (4) The source shall keep the following documentation to show compliance with each of its control measures and control practices:
- (A) A map or diagram showing the location of all emission sources controlled, including the:
 - (i) location;
 - (ii) identification;
 - (iii) length; and
 - (iv) width of roadways.
 - (B) For each application of water or chemical solution to roadways, the following shall be recorded:
 - (i) The name and location of the roadway controlled.
 - (ii) Application rate.
 - (iii) The time of each application.
 - (iv) The width of each application.
 - (v) The identification of each method of application.
 - (vi) The total quantity of water or chemical used for each application.
 - (vii) For each application of chemical solution, the concentration and identity of the chemical.
 - (viii) The material data safety sheets for each chemical.
 - (C) For application of physical or chemical control agents not covered by clause (B), the following:
 - (i) The name of the agent.
 - (ii) The location of application.
 - (iii) The application rate.
 - (iv) The total quantity of agent used.
 - (v) If diluted, the percent of concentration.
 - (vi) The material data safety sheets for each chemical.
 - (D) A log recording incidents when control measures were not used and a statement of explanation.
 - (E) Copies of all records required by this rule shall be submitted to the department within twenty (20) working days of a written request by the department.

- (F) The records required under this subdivision shall be:
 - (i) kept and maintained for at least three (3) years; and
 - (ii) available for inspection and copying by department representatives during working hours.

- (G) A quarterly report shall be submitted to the department stating the following:
 - (i) The dates any required control measures were not implemented.
 - (ii) A listing of those control measures.
 - (iii) The reasons that the control measures were not implemented.
 - (iv) Any corrective action taken.

This report shall be submitted to the department thirty (30) calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(A) as follows:

- (i) The source and location, if the source is located on another source's property.

REQUESTED INFORMATION

The address of the source location is as follows:

Tube City IMS at ArcelorMittal Steel USA-Indiana Harbor East
3236 Watling Street
East Chicago, Indiana 46312

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(A) as follows:

- (ii) If different from that of the source, the owner or operator responsible for the execution of the plan.

REQUESTED INFORMATION

The operator responsible for the facilities described in this Plan is:

Tube City IMS
1155 Business Center Drive, Suite 200
Horsham, Pennsylvania 19044-3454

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3) as follows:

- (B) Identification of the facilities or operations listed in section 1(a)(1) of this rule and those affected by 326 IAC 6.8-2 through 326 IAC 6.8-7 that exist at the source.4.

REQUESTED INFORMATION

Tube City IMS Processes and Operations at ArcelorMittal Steel USA-Indiana Harbor East

- (1) Slag Processing
- (2) Scrap Processing
 - a. Tundish Lancing under a Baghouse
 - b. Ball Drop
- (3) Pot Hauling and Pit Digging - #2 and #4 Steel Processing
- (4) Pot Dumping - # 5 and #6 Blast Furnaces
- (5) Unpaved Roads and Parking Lots
- (6) Paved Roads
- (7) Storage Piles

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3) as follows:

- (C) A map showing the location of all of the following:
- (i) Unpaved roads.
 - (ii) Paved roads.
 - (iii) Parking lots.
 - (iv) Storage piles.
 - (v) Material processing facilities.
 - (vi) Dust handling equipment.
 - (vii) Material transfer points.
 - (viii) Waste disposal and reclamation sites.

REQUESTED INFORMATION

Figure 1 is an overall site plan that identifies the processes and operations conducted by Tube City IMS at the ArcelorMittal Steel USA-Indiana Harbor East facilities.

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(D) as follows:

- (i) The road lengths and widths, average daily traffic, surface silt loading, classification of vehicle traffic, and other data necessary to estimate PM10 emissions from paved and unpaved roads and parking lots.

REQUESTED INFORMATION

The following Tables provides all the information necessary to determine the amount of fugitive dust emitted from unpaved roadway traffic.

VEHICULAR ACTIVITY ON ROADWAYS

Table 1. Vehicle Information

Vehicle Description	Max. No. round trips at peak hours	Distance one way	Speed	Max gross weight	Tare weight	No. of wheels
Units	Trips/hour	Miles/trip	mph	tons	tons	
Kress 420CT Pot Carriers	1.5	0.20	10.0	230.00	80.00	4
Kress 2000CT Pot Carriers	3.0	1.50	10.0	210.00	110.00	4
CAT 988 Hot Pit Loader	3.0	0.10	5.0	70.00	55.00	4
Kawasaki 95Z RT Loader	2.0	0.10	5.0	42.00	34.00	4
50 Ton Off Highway Truck	2.0	0.75	10.0	140.00	90.00	4
CAT 988 RT Loader	60.0	0.20	5.0	70.00	55.00	4
50 Ton Off Highway Truck	10.0	0.75	10.0	140.00	90.00	4
Water truck	3.0	4.50	10.0	140.00	90.00	4
Road Grader	2.0	2.50	5.0	25.00	25.00	6
Fuel and Lube Truck	2.0	2.50	10.0	1.50	1.50	4

Table 2. Roadway Information

Road ID	Type	Silt Loading	Total Loads/year	Feet/leg	Miles/leg	Legs/trip	Annual Miles travelled
01	Unpaved 2 Lane	1.5%	18,182	1,055	0.200	2	7,266
02	Unpaved 2 Lane	1.5%	18,182	100	0.019	2	689
03	Unpaved 2 Lane	1.5%	8,929	100	0.019	2	512
04	Unpaved 2 Lane	1.5%	133,333	100	0.019	2	5,041
05	Unpaved 2 Lane	1.5%	13,333	800	0.152	2	4,040
06	Unpaved	1.5%	133,333	700	0.133	2	35,354

Road ID	Type	Silt Loading	Total Loads/year	Feet/leg	Miles/leg	Legs/trip	Annual Miles travelled
	2 Lane						
07	Unpaved 2 Lane	1.5%	13,333	100	0.019	2	505
08	Unpaved 2 Lane	1.5%	133,333	50	0.009	2	2,525
09	Unpaved 2 Lane	1.5%	24,000	2,640	0.500	2	24,000
10	Unpaved 2 Lane	1.5%	8,000	2,640	0.500	2	8,000
11	Unpaved 2 Lane	1.5%	13,333	2,640	0.500	2	13,333
12	Unpaved 2 Lane	1.5%	2,000	2,640	0.500	2	2,000
13	Unpaved 2 Lane	1.5%	4,000	2,640	0.500	2	4,000

MATERIALS HANDLED

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(D) as follows:

- (ii) A description of each storage pile, including the following:
 - (AA) The type of material in the pile.
 - (BB) Its moisture content.
 - (CC) The silt content.
 - (DD) The throughput.
 - (EE) The equipment used to load onto and load out of the storage piles.

REQUESTED INFORMATION

Table 3. Storage Pile Information

Storage Pile ID	Type	Moisture Content (%)	Silt Content (%)	Throughput (tons/year)	Loading Equipment
1	Unprocessed EAF slag and scrap	0.92	5.3	2,000,000	CAT 988 RT Loader
2	Processed + 16" scrap and slag	3.60	0	80,000	CAT 988 RT Loader
3	Processed 16" x 3.5" scrap	3.60	0	100,000	CAT 988 RT Loader
4	Processed 3.5" x 3/8" EAF scrap	3.60	0	280,000	CAT 988 RT Loader
5	Processed 3.5" x 3/8" EAF slag	3.60	0	100,000	CAT 988 RT Loader
6	Processed 3/8" x #4	3.60	0	80,000	CAT 988 RT

Storage Pile ID	Type	Moisture Content (%)	Silt Content (%)	Throughput (tons/year)	Loading Equipment
	scrap				Loader
7	Processed 3/8" x #4 EAF slag	3.60	0	100,000	CAT 988 RT Loader
8	Processed #4 x 0" scrap and slag	3.60	3.3	1,080,000	CAT 988 RT Loader

MATERIAL PROCESSING FACILITIES

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(D) as follows:

- (iii) A complete description of the material processing facilities on the plant property, including the following:
 - (AA) A material flow diagram of the processing lines.
 - (BB) The rated capacity of each piece of equipment.
 - (CC) The existing control equipment and their efficiencies, including the process equipment served.

REQUESTED INFORMATION

Figure 2 and Figure 3 show the slag plant setup, and the material flow respectively of the Tube City IMS operations. The slag processing plant consists of the following equipment and throughput capacities in tons per year:

<u>EQUIPMENT</u>	<u>CAPACITY (tons/hour)</u>
(1) Forty-eight (48) conveyors;	
(2) Two (2) double deck screens;	
(3) Four (4) triple deck screens;	
(4) Three (3) crushers;	
(5) Two (2) feeders;	
(6) Three (3) MAG head pulleys;	
(7) One (1) splitter box; and	
(8) One (1) electro magnet	
(9) Twelve (12) oxymethane flame cutting stations	

MATERIAL TRANSFER

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(D) as follows:

- (iv) 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 section 2(13) of this rule.

REQUESTED INFORMATION

Tube City IMS operations at the ArcelorMittal facility will consist of material transfer and inland transportation as follows:

#4 SP Pot Hauling Services

Tube City IMS will haul slag pots from the #4 Steel Processing facility, and also dig and haul slag for further processing from the dump station slag pits 24 hours a day, 7 days a week.

#2 SP Pot Dumping Services

Tube City IMS will dig and move the #2 S Steel Processing slag from the pot dump station in conjunction with the #4 SP dump station operations. This dug material will also be processed through the processing plant located in the same area adjacent to the #4 SP locations...

#2 SP and #4 SP Slag Processing and Metal Recovery Services

Material from the #2 and #4 SP facilities previously described will be fed to the slag processing plant by CAT 988 rubber tire loaders. 50-ton off-highway trucks will be used to move material away and around the processing plant.

A 35 ton highway tractor and a 100 ton lowboy will be utilized to haul oversized material from the #2 and #4 SP facilities. Cable cranes with 100 ft booms equipped with magnet and drop ball attachments will be used to break up oversized scrap. A hydraulic crane will also be used to break scrap and move material.

Processed slag will either be trucked off site or delivered back to the mill for use as feed material.

#2 and #4 SP Melt Shop Cleanup Services

Rubber tire loaders (or equivalent) equipped with remote controls will be used for metal shop clean-up services by digging underneath the #2 and #4 SP furnaces. A 50 ton off-highway truck will then be used to haul this material to the slag dump station.

A water truck will be utilized throughout the site to water the roadways used for transportation of the material.

OTHER PROCESSES

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3)(D) as follows:

- (v) A complete description of all other fugitive particulate matter emitting facilities not covered in this clause.

REQUESTED INFORMATION

Lancing operations will be conducted under a baghouse to reduce the size of large scrap material not adequately reduced by the drop ball cranes.

CONTROL MEASURES

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3) as follows:

- (E) The description of the proposed control measures and practices that the source will employ to achieve compliance with the emission limitations and data that prove its effectiveness.

REQUESTED INFORMATION

The following control measures are designed to reduce uncontrolled fugitive dust, from the emission points previously identified and achieve compliance with emission limitations:

(1) Slag Processing

The material processed through the facility has a moisture content which helps in controlling the amount of fugitive emissions during processing. However, if the moisture level gets too high the material cannot be screened properly. Control measures in this area are based on the use of water sprays. These sprays are directed at the dust being emitted from specific points within the process. The purpose is to agglomerate the dust particles so they settle more quickly. The system also has sprays which can be used to wet the material when this can be done without interfering with the screening process.

The water distribution system is fitted with flow meters which are checked weekly by the visual emissions observer. In this way he can correlate the flow rate to the effectiveness of the dust suppression system.

Additionally the front-end loader operator shall be directed to avoid overfilling the bucket of the loader and the feed hoppers to prevent spillage, and to minimize the drop height of the material when loading the feed hoppers or transferring material to stockpiles.

(2) Scrap Processing

(A) Tundish Lancing

All lancing operations will be conducted under a hood attached to a baghouse where fabric collectors use filtration to separate dust particulates from dusty gases. This setup provides one of the most efficient and cost effective types of dust collectors available and can achieve a collection efficiency of more than 99% for very fine particulates. In accordance with 326 IAC 6-5-4 (i)(1)(B), to prevent particulate matter from escaping during Tundish lancing operations, emission will be captured via a hood and conveyed through a duct into a baghouse system.

(B) Ball Drop

Dust suppression in the Ball drop are will be accomplished by applying water to the material being processed. Because this operation is conducted outdoors, conditions will vary widely. Operating personnel will be trained to recognize unacceptably high dust levels and will react by applying water using hoses.

(3) Pot Hauling, Pot Dumping and Pit Digging

Molten slag is transported from the Steel furnaces by slag pot haulers operated by Tube City IMS and the pot hauler speeds are no greater than 10 mph for safety reasons and to minimize the occurrence of dust.

The molten slag is unloaded at the pot dumping station after which water is applied to temper the slag in the pit. Two or more pits are used alternately in sequence for pot dumping to allow previously dumped slag to be tempered in one pit while new molten slag is dumped in the next pit. The current pot dumping frequency may be as high as one pot per 1.2 hours. Sufficient water is applied to ensure compliance with visible emission limitations. Tempered slag is removed from the pit before the next pot is dumped. All water sprays are turned off following the removal of the tempered slag and no dumping into the pit is allowed for a period of at least 15 minutes after the spraying ends. Note: Extreme caution must be exercised by personnel preparing to dump a pot of molten slag into the excavated pit to ensure that no water remains in the pit. The tempered slag is deposited in an intermediate feed pile where material is watered until it is sufficiently moist to be processed. Drop heights from loaders are kept at a minimum during all transfers. Visual observations are performed to determine the need for additional water application. Maintaining moisture and minimizing drop heights are part of Tube City IMS Best Management Practices (BMPs).

This plan is supplemented by standard operating procedures (SOP) and safety job practices (SJP) for the Pot Station Attendant and the Loader Operator for Pit digging.

(4) Unpaved Roads and Parking Lots

Unpaved roadways and parking areas will be watered each day there is roadway activity at the Tube City IMS site except when there is sufficient natural precipitation or the temperature is near or below freezing. The water truck will travel at a speed of approximately 3 to 5 miles per hour when applying water. Frequency of road watering will depend on weather conditions.

Water will be the predominant dust suppressant material utilized in all processes and operations where fugitive emissions may arise.

In accordance with 326 IAC 6-5-4 (a)(2)(C), roadways and parking lots will be sprayed with water and the frequency of application shall be on an as needed basis.

In accordance with 326 IAC 6-5-4 (b)(2)(B), open aggregate piles shall be sprayed with water on an as needed basis.

In accordance with 326 IAC 6-5-4 (c)(2) and 326 IAC 6-5-4 (h)(1), Slag processing operations will employ moist material and water sprays at the feed and/or intermediate points including the crushing and screening points as needed to minimize visible emissions.

In accordance with 326 IAC 6-5-4 (d)(3), Fugitive emissions resulting from the transferring of aggregate material shall be controlled by the application of water as needed.

In accordance with 326 IAC 6-5-4 (e)(5), particulate matter emissions resulting from the transportation of aggregate material shall be controlled by ensuring that the material being transported is moist.

In accordance with 326 IAC 6-5-4 (f)(3), Fugitive particulate matter emissions resulting from loading and unloading operations of material shall be controlled by spraying with water as needed.

ALTERNATIVE CONTROL PRACTICES

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3) as follows:

- (F) A list of the conditions that will prevent control measures and practices from being applied and alternative control practices and measures that will achieve compliance with the emission limitations.

REQUESTED INFORMATION

Since the utilization of water is the preferred method for the control of fugitive emissions, the only conditions that would prevent the application of this practice would be weather related and would include the following:

1. Rain
2. Snow
3. Saturated ground or material
4. Frozen ground or material.

During any of these conditions no fugitive dust is expected to arise from material handling, processing, or transport.

COMPLIANCE SCHEDULE

APPLICABLE REGULATION FOR PLAN CONTENT:

326 IAC 6.8-10-4(3) as follows:

- (G) A schedule for achieving compliance with the provisions of the control plan. The schedule shall specify the time required to:
 - (i) award necessary contracts; and
 - (ii) begin and complete construction and installation.

Final compliance shall be achieved no later than December 10, 1993.

REQUESTED INFORMATION

The compliance plan will be immediately effective upon issuance of an operating permit. Construction is anticipated to begin in April 2009 with a startup date of June 5, 2009.

RECORD KEEPING

APPLICABLE REGULATION FOR PLAN CONTENT:

3326 IAC 6.8-10-4 as follows:

- (4) The source shall keep the following documentation to show compliance with each of its control measures and control practices:
 - (A) A map or diagram showing the location of all emission sources controlled, including the:

- (i) location;
 - (ii) identification;
 - (iii) length; and
 - (iv) width of roadways.
- (B) For each application of water or chemical solution to roadways, the following shall be recorded:
- (i) The name and location of the roadway controlled.
 - (ii) Application rate.
 - (iii) The time of each application.
 - (iv) The width of each application.
 - (v) The identification of each method of application.
 - (vi) The total quantity of water or chemical used for each application.
 - (vii) For each application of chemical solution, the concentration and identity of the chemical.
 - (viii) The material data safety sheets for each chemical.
- (C) For application of physical or chemical control agents not covered by clause (B), the following:
- (i) The name of the agent.
 - (ii) The location of application.
 - (iii) The application rate.
 - (iv) The total quantity of agent used.
 - (v) If diluted, the percent of concentration.
 - (vi) The material data safety sheets for each chemical.
- (D) A log recording incidents when control measures were not used and a statement of explanation.
- (E) Copies of all records required by this rule shall be submitted to the department within twenty (20) working days of a written request by the department.
- (F) The records required under this subdivision shall be:
- (i) kept and maintained for at least three (3) years; and
 - (ii) available for inspection and copying by department representatives

during working hours.

(G) A quarterly report shall be submitted to the department stating the following:

- (i) The dates any required control measures were not implemented.
- (ii) A listing of those control measures.
- (iii) The reasons that the control measures were not implemented.
- (iv) Any corrective action taken.

This report shall be submitted to the department thirty (30) calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.

REQUESTED INFORMATION

Tube City IMS will comply with the above regulation regarding record keeping.

ATTACHMENT (B)

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

[Browse Previous](#) | [Browse Next](#)

Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 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.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(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

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

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?

ATTACHMENT (B)

(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.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 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 maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for 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 emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less

ATTACHMENT (B)

than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

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?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(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.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO_x) emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

ATTACHMENT (B)

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO_x emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 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.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. 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.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

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.

ATTACHMENT (B)

(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.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency 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.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(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

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA

ATTACHMENT (B)

nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

ATTACHMENT (B)

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 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.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

ATTACHMENT (B)

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(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.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or

ATTACHMENT (B)

operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

ATTACHMENT (B)

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{O}_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

$\% \text{O}_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

ATTACHMENT (B)

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209}{F_c} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2 , percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dm^3 / J ($dscf / 10^6$ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dm^3 / J ($dscf / 10^6$ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X_{CO_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

ATTACHMENT (B)

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

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?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

ATTACHMENT (B)

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(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.

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in §60.4204(c).

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart IIII, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart IIII. If EPA approves by rulemaking process an alternative plan, the provisions as

ATTACHMENT (B)

approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under §60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of §60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4202 or §60.4203 using such fuels.

(b) [Reserved]

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.

ATTACHMENT (B)

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).

ATTACHMENT (B)

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

ATTACHMENT (B)

Table 2 to Subpart III of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart III of Part 60—Certification Requirements for Stationary Fire Pump Engines

[As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

ATTACHMENT (B)

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO _x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

¹For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

ATTACHMENT (B)

³In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

ATTACHMENT (B)

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO _x emissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _x concentration.
		iv. Measure NO _x at the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the	i. Select the	(1) Method 1 or	(a) If using a control

ATTACHMENT (B)

For each	Complying with the requirement to	You must	Using	According to the following requirements
	concentration of NO _x in the stationary CI internal combustion engine exhaust.	sampling port location and the number of traverse points;	1A of 40 CFR part 60, appendix A	device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _x concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _x concentration.
		iv. Measure NO _x at the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at	(2) Method 3,	(b) Measurements to

ATTACHMENT (B)

For each	Complying with the requirement to	You must	Using	According to the following requirements
		the inlet and outlet of the control device;	3A, or 3B of 40 CFR part 60, appendix A	determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the

ATTACHMENT (B)

For each	Complying with the requirement to	You must	Using	According to the following requirements
		engine exhaust at the sampling port location; and		measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

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	

ATTACHMENT (B)

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart III.
§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

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

Source Name:	Tube City IMS
Source Location:	3236 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	7389
Part 70 Operating Permit No.:	089-26806-00030
Significant Source Modification No.:	089-28058-00030
Permit Reviewer:	Aida De Guzman

On February 21, 2009, the Office of Air Quality (OAQ) had a notice published in the Gary Post Tribune, Merrillville, Indiana and in the Times, Munster, Indiana, stating that Tube City IMS applied for applications regarding a significant source modification and a Part 70 Operating Permit that would allow Tube City IMS to take over part of the slag/kish and scrap processing operations being run by MultiServ (Plant ID 089-00367). Likewise, Tube City IMS will totally take over the slag crushing and sizing operation currently done by Heritage Slag Products, LLC (Plant ID 089-00481). The Tube City IMS will be building its own slag/kish processing, slag crushing and sizing plant. The notice also stated that OAQ proposed to issue permits for these operations and provided information on how the public could review the proposed permits and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not these permits should be issued as proposed.

Additions are **bolded** and deletions are ~~struck through~~ as results of the following comments made to the draft permits and notes of changes made to the original TSD:

On March 30, 2009, Michael Connolly of Tube City IMS, made the following comments to the draft permits:

Comment 1: On Page 5 of 57, Section A.1 and on Page 1 of 17 of the Technical Support Document (TSD), please change the SIC Code to 7389.

Response 1: The SIC Code found in Section A.1 of the draft permits has been changed from 3295 to 7389. However, IDEM, OAQ prefers not to change the original TSD in order to preserve the original information from the issued permits. This TSD Addendum is part of the TSD. It serves to document the changes being made to the permits and the TSD. The change to Section A.1 of the draft permits is as follows:

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 slag and kish processing.

Source Address:	3236 Watling Street, East Chicago, Indiana 46312
Mailing Address:	1155 Business Center Drive, Horsham, PA 19044
General Source Phone Number:	(215) 956-5618
SIC Code:	3295 -7389
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard and PM2.5
Source Status:	Attainment for all other criteria pollutants Part 70 Operating Permit Program Major Source, under PSD, Emission Offset Rules and Nonattainment NSR Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

The change to the TSD, which is documented here, is as follows:

Source Description and Location
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Source Name:	Tube City IMS
Source Location:	3236 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3295 -7389
Significant Source Modification No.:	089-28058-00536
Initial Part 70 Operation Permit No.:	T 089-26806-00536
Permit Reviewer:	Aida De Guzman

On March 23, 2009, U.S. EPA, Region 5 made the following comments to the draft permits:

Comment 1: On Page 14 of the Technical Support Document and Page 37 of the permit the citation 40 CFR 60.4202(2) is inaccurately copied, it should be 40 CFR 60.4202(a)(2). In addition, the citation 40 CFR 60.4200(a)(2)(i) is missing from section E.1.2 on page 37 of the permits

Response 1: Page 37 of the draft permits (Significant Source Modification and Part 70 Operating Permit) has been corrected as follows:

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

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines) (included as Attachment B) 40 CFR 60.4200:

40 CFR 60.4200(a)(2)(i)
40 CFR 60.4202(a)(2)
40 CFR 60.4205(b)
40 CFR 60.4206
40 CFR 60.4207(a), (b)
40 CFR 60.4208(a)
40 CFR 60.4209
40 CFR 60.4211(a), (c), (e)
40 CFR 60.4212

40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 5
Table 8

IDEM, OAQ prefers not to change the TSD in order to preserve the original information from the issued permits. This TSD Addendum is part of the TSD. It serves to document the changes being made to the permits and the TSD. The changes to the TSD, which are documented here, are as follows:

- (3) 40 CR Part 60, Subpart IIII - – New Source Performance Standards for Stationary compression Ignition Internal Combustion Engines. This rule applies to owners and operators of stationary CI ICE that commences construction after July 11, 2005 and will be manufactured after April 1, 2006 and are not fire pump engines.

The proposed 450 BHP diesel fired emergency generator with an engine displacement of 1.2 liters per cylinder, is subject to this NSPS since it will be manufactured after April 1, 2006 and it is not a fire pump engine.

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

40 CFR 60.4200(a)(2)(i)
40 CFR 60.4202(a)(2)
40 CFR 60.4205(b)
40 CFR 60.4206
40 CFR 60.4207(a), (b)
40 CFR 60.4208(a)
40 CFR 60.4209
40 CFR 60.4211(a), (c), (e)
40 CFR 60.4212
40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 5
Table 8

- Comment 2: Please clarify if all the visible emission reading requirements under 326 IAC 6.8-10-3 that are on Pages 14-15 of the TSD and Condition C.4 of the draft permits will use EPA Method 9 and a certified reader.
- Response 2: All the visible emission readings on Pages 14-15 of the TSD and Condition C.4 that are required for the different processing activities under 326 IAC 6.8-10-3 specify the use of EPA Method 9, done by a certified reader; except for the "Inplant Transportation of Material by Truck or Rail" which requires the use of EPA Method 22. EPA Method 22 only determines whether visible emissions occur and does not require the determination of opacity levels, hence certified reader is not required.
- Comment 3: On Page 15 of the TSD there is a requirement under (5)(A) for PM10 stack emissions from a material processing facility shall not exceed 0.022 gr/dscf. The testing method can be found in 326 IAC 6.8-4. Is there a testing schedule associated with this grain loading requirement?

Response 3: The oxymethane cutting is the only operation that is done inside the building and therefore subject to a PM10 limit of 0.022 grain/dry standard cubic foot (gr/dscf) and opacity limit of 10 percent under 326 IAC 6.8-10.3(7)(A). The permit drafts include the requirements for PM10 and PM2.5 stack testing for this operation within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008 or within 180 days of achieving normal operation of the oxymethane flame cutting operation, whichever comes later.

The draft permits have been revised by adding the PM10 limit of 0.022 gr/dscf and opacity limit of 10 percent (%) required under 326 IAC 6.8-10.3(7)(A). Subsequent conditions have been re-numbered accordingly. The revision is as follows:

D.1.2 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the oxymethane flame cutting operation shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from the baghouse associated with the oxymethane flame cutting operation shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.1.45 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the limits in Conditions **D.1.1**, **D.1.2** and **D.1.3** for the oxymethane flame cutting operation, the Permittee shall perform **PM/PM10** and **PM2.5** testing on one (1) baghouse associated with the oxymethane flame cutting operation within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008 or within 180 days of achieving normal operation of the oxy-methane flame cutting operation, whichever comes later. This testing shall be conducted utilizing methods as approved by the Commissioner.

The **PM/PM10** and **PM2.5** testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. **PM10** and **PM2.5** includes filterable and condensable PM.

D.1.6 7 PM and PM10 Control

In order to comply with Conditions **D.1.1**, **D.1.2** and ~~D.1.2~~ **D.1.3**,

D.1.10-11 Record Keeping Requirements

- (a) To document compliance with Condition ~~D.1.2~~ **D.1.3**, the Permittee shall maintain records of the scrap and slag/kish total throughput weight that was processed for each compliance period.
- (b) To document compliance with Condition ~~D.1.7~~, **D.1.8**, the Permittee shall maintain records of the once per day visible emission notations notations from each feeder, crusher, hopper, screen, conveyor and oxymethane flame cutting

- and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition ~~D.1.6~~ **D.1.7**, the Permittee shall maintain records of the quarterly moisture content analysis of the slag aggregate stockpile materials.
 - (d) To document compliance with Condition ~~D.1.8~~, **D.1.9** the Permittee shall maintain once per day records of the total static pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
 - (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4412 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition ~~D.1.2(a)~~ **D.1.3(a)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Comment 4: Page 10 of the TSD states that the slag/kish throughput has been limited to 1,620,000 tons/yr. The emission calculations attached to TSD show for T1, T3, T4, T5, T27 and S1 show the throughput to be higher. Should those be corrected to the 1,620,000 ton/yr restriction?

Response 4: The potential to emit (PTE) from the various slag/kish operations as shown in Pages 1 through 17, TSD Appendix A was calculated based on the highest or maximum throughput at 8760 hours per year of operation. This is the PTE used to determine for the level of permit required under 326 IAC 2-7-10.5.

The PTE on Pages 10 through 12, TSD Appendix A which accounts for the use of control equipment and emission limitation for each emission unit is used to determine if the project is major or significant under 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset). Since the source requested that this project or modification be kept minor under 326 IAC 2-2 and 326 IAC 2-3, each emission unit was limited to keep the project's PM emissions below 25 tons per year, PM10 emissions below 15 tons per year and PM2.5 below 10 tons per year. (Note: Although Tube City IMS is a new plant, it is a modification to ArcelorMittal Steel USA). No change has been made to the PTE calculations spreadsheets as a result of this comment.

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

**Technical Support Document (TSD) for a Significant Source Modification
and an Initial Part 70 Operating Permit**

Source Description and Location	
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Source Name:	Tube City IMS
Source Location:	3236 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3295
Significant Source Modification No.:	089-28058-00536
Initial Part 70 Operation Permit No.:	T 089-26806-00536
Permit Reviewer:	Aida De Guzman

Source Definition

Tube City IMS will be taking over part of the slag/kish and scrap processing operations being run by MultiServ (Plant ID 089-00367). Likewise, Tube City IMS will totally take over the slag crushing and sizing operation currently done by Heritage Slag Products, LLC (Plant ID 089-00481), both plants are contractors to ArcelorMittal Steel USA – Indiana Harbor East. The Tube City IMS will be building its own slag/kish, scrap, slag crushing and sizing processing plant.

Since MultiServ and Heritage Slag Products, LLC were determined to be part of ArcelorMittal Steel USA due to contractual control and being located on contiguous or adjacent properties, therefore, the one source determination is also valid to Tube City IMS.

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

- (a) ArcelorMittal USA, Inc. (Plant ID 089-00316), the primary operation, is located at 3210 Watling Street, East Chicago, Indiana;
- (b) Fritz Enterprises Inc. (Plant ID 089-00465), the on-site contractor (an iron and steel recycling process and a coke screening plant), is located at 3210 Watling Street, East Chicago, Indiana;
- (c) Beemsterboer Slag and Ballast Corp. (Plant ID 089-00356), the on-site contractor (a slag crushing and sizing operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (d) East Chicago Recovery (Plant ID 089-00358), the on-site contractor (a briquetting facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (e) Tube City IMS (Plant ID 089-00536), the on-site contractor (a slag and kish processing plant), is located at 3236 Watling Street, East Chicago, Indiana;
- (f) Oil Technology (Plant ID 089-00369), the on-site contractor (a used oil recycling facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (g) Mid Continent Coal and Coke (Plant ID 089-00371), the on-site contractor (a metallurgical coke separation facility), is located at 3236 Watling Street, East Chicago, Indiana;

- (h) Indiana Harbor Coke Company (IHCC) (Plant ID 089-00382), the on-site contractor (a heat recovery coal carbonization facility), is located at 3210 Watling Street, East Chicago, Indiana 46312;
- (i) Cokenergy, Inc. (Plant ID 089-00383), the on-site contractor (a heated gas steam from coal carbonization operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (j) LAFARGE North America (Plant ID 089-00458), the on-site contractor (a slag granulator and pelletizer operation), is located at 3210 Watling Street, East Chicago, Indiana; and
- (k) MultiServ (Plant ID 089-00367), the on-site contractor (a scarfing plant and slag boat loading operation), is located at 3236 Watling Street, East Chicago, Indiana;

A separate Part 70 permit will be issued to Tube City IMS, solely for administrative purposes.

Existing Approvals

Tube City IMS submitted an application for a Part 70 Operating Permit on July 28, 2008, with additional information submitted on September 2, 2008, October 26, 2008, January 22, 2009, and February 9, 2009. The source is new and has not been issued an air approval.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O ₃	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

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

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

- (1) One-hour ozone standard:

On December 22, 2006, the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-

Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NO_x threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for nonattainment new source review. See the State Rule Applicability for the source section.

(2) 8-hour ozone standard:

VOC and NO_x emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) 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 New Source Review Rule for PM_{2.5} promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) Lake County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is 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 Arcelor Mittal USA, Inc. since the Tube City IMS proposed operation is a modification to Arcelor Mittal USA, Inc., after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (ton/yr)
PM	greater than 100
PM ₁₀	greater than 100
SO ₂	greater than 100
PM _{2.5}	greater than 100
VOC	greater than 100
CO	greater than 100
NO _x	greater than 100
Single HAP	greater than 10
Combined HAPs	greater than 25

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, 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 source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since direct PM_{2.5} is emitted at a rate of 100 tons per year or more.
- (c) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3) for the 8-hour ozone standard because the VOC and NO_x are emitted at a rate of 100 tons per year or more.
- (d) This existing 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

The following table shows the actual emissions from Arcelor Mittal USA, Inc. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (ton/yr)
PM	2,003
PM ₁₀	2,003
PM _{2.5}	2,003
SO ₂	3,224
VOC	1,463
CO	113,063
NO _x	4,418
Pb	4.25
HAP	not reported
Total HAPs	not reported

Description of Proposed Source Modification or New Source Construction

The Office of Air Quality (OAQ) has reviewed a source modification application, submitted by Tube City IMS on July 28, 2008, with additional information submitted on September 2, 2008 and October 26, 2008, January 22, 2009, and February 9, 2009 related to the proposed slag/kish scrap, slag crushing and sizing processing plant at Arcelor Mittal USA, Inc. The following is a list of the proposed emission units and pollution control devices:

- (a) One (1) slag/kish, scrap, slag crushing and sizing processing plant with a design capacity of 1,000 tons per hour but limited to 1,620,000 tons of annual throughput:
 - (1) Forty-eight (48) conveyors;
 - (2) Two (2) double deck screens;
 - (3) Four (4) triple deck screens;
 - (4) Three (3) crushers;
 - (5) Two (2) feeders;
 - (6) Three (3) MAG head pulleys;
 - (7) One (1) splitter box; and
 - (8) One (1) electro magnet

These emissions units at the slag/kish, scrap, slag crushing and sizing plant will be powered by electricity, and no emission unit will be powered by diesel or other types of fuel, except for the natural gas used in the oxymethane flame cutting of scrap.

- (b) Scrap Cutting Operation consisting of the following:
 - (1) Twelve (12) oxymethane flame cutting stations with a total maximum cutting rate of 15 inches/minute using natural gas fuel at maximum of 2.75 million cubic feet per year (0.32 million British thermal units per hour (MMBtu/hr)), all stations controlled by one (1) baghouse.

Insignificant Activities:

This source consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21) with specifically regulated insignificant activities identified in Section D.2:

Water related activities including:

- (a) Production of hot water for on-site personal use not related to any industrial or production process.
- (b) Water treatment activities used to provide potable and process water for the plant excluding any activities associated with wastewater treatment.
- (c) Steam cleaning operations and steam sterilizers.
- (d) Pressure washing of equipment.

Combustion activities including the following:

- (a) Portable electrical generators that can be moved by hand from one location to another. "Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.

- (b) Fuel use related to food preparation for on-site consumption.
- (c) Tobacco smoking rooms and areas.
- (d) Indoors and outdoor kerosene heaters.

Activities related to ventilation, venting equipment and refrigeration, including the following:

- (a) Ventilation exhaust, central chiller water systems, refrigeration and air conditioning equipment, not related to any industrial or production process, including natural draft hoods or ventilating systems that do not remove air pollutants.
- (b) Vents for air cooling of electric motors provided the air does not commingle with regulated air pollutants.

Activities related to routine fabrication, maintenance and repair of buildings, structures, equipment or vehicles at the source where air emissions from those activities would not be associated with any commercial production process including the following:

- (a) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both, of parking lots and roadways.
- (b) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents.
- (c) Batteries and battery charging stations, except at battery manufacturing plants.
- (d) Lubrication, including hand-held spray cans lubrication, dipping metal parts into lubricating oil, and manual or automated addition of cutting oil in machining operation.
- (e) Manual tank gauging

Housekeeping and janitorial activities and supplies including the following:

- (a) Vacuum cleaning systems used exclusively for housekeeping or custodial activities, or both.
- (b) Rest rooms associated cleanup operations and supplies.

Office related activities including the following:

- (a) Office supplies and equipment.
- (b) Photocopying equipment and associated supplies.
- (c) Paper shredding.
- (d) Blueprint machines, photographic equipment and associated supplies

Storage equipment and activities including:

- (a) Storage of the following:
 - (1) Lance rods.

Emergency and standby equipment including:

- (a) Safety and emergency equipment, except engine driven fire pumps, including fire suppression systems and emergency road flares.

Sampling and testing equipment and activities including the following:

- (a) Hydraulic and hydrostatic testing equipment.

Activities generating limited amount of fugitive dust including:

- (a) Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes under 326 IAC 2-7-1(22)(B) and any required fugitive dust control plan or its equivalent is submitted.

Miscellaneous equipment, but not emissions associated with the process for which the equipment is used, and activities including the following:

- (a) Manual loading and unloading operations.

Combustion related activities, including the following:

- (a) Space heaters, process heaters, or boilers using the following fuels:
 - (1) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths percent (0.5%) sulfur by weight.

The source will use two (2) direct fired space heaters each with a heat input capacity of 500,000 Btu/hour.

Fuel dispensing activities, including the following:

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks maybe in a fixed location or on mobile equipment.
- (b) A petroleum fuel, other than gasoline dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons and dispensing three thousand five hundred (3,500) gallons per day or less.

The following VOC and HAP storage containers:

- (a) Storage tanks with capacity less than one thousand (1,000) gallons and annual throughput less than twelve thousand (12,000) gallons.
- (b) Vessels storing the following:
 - (1) Hydraulic oils.
 - (2) Lubricating oils
 - (3) Machining oils
 - (4) Machining fluids

Equipment used exclusively for the following:

(a) Filling drums, pails or other packaging containers with the following:

- (1) Greases
- (2) Lubricating oils

Production related activities, including the following:

(a) Application of the following as temporary protective coatings:

- (1) Greases
- (2) Lubricants

Water-based activities, including the following:

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

Repair activities, including the following:

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

Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

- (a) Catch tanks
- (b) Temporary liquid separators
- (c) Tanks
- (e) Fluid Handling equipment

Activities associated with emergencies, including the following:

(a) Diesel generator not exceeding one thousand six hundred (1,600) horsepower.

The source will utilize one (1) 450 horsepower diesel generator.

Emission Calculations

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

Permit Level Determination – Part 70

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

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

Tube City IMS Operations	
Pollutant	Potential To Emit (ton/yr)
PM	342.07
PM ₁₀	123.08
PM _{2.5}	37.06
SO ₂	2.90
VOC	1.5
CO	0.1
NO _x	19.10

- (a) The proposed modification, which is the construction of Tube City, IMS has an uncontrolled potential to emit from at least one of the pollutants (PM and PM10) equal to or greater than 25 tons per year. Therefore, the source is subject to the Significant Source Modification provisions of 326 IAC 2-7-10.5(f).
- (b) The proposed source modification will be incorporated into a new Part 70 Operating Permit for Tube City IMS through a significant permit modification issued pursuant to 326 IAC 2-7-12(d). The Significant Permit Modification requirements are satisfied through the issuance of the initial Part 70 Operating Permit.

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 Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Potential to Emit (tons/year)							
EMISSION UNITS	PM	PM10	PM2.5	VOC	NOX	SO2	CO
Slag Transfers	3.30	1.14	0.28	-	-	-	-
Screening	6.90	2.30	0.13	-	-	-	-
Crushing	0.94	0.42	0.06	-	-	-	-
Scrap Cutting	6.20	0.61	0.54	-	0.1	-	0.1
Storage Piles Load-In (fugitive)	Emissions included in the EU-05 BOF Pot Dumping						
Dust Storage Piles Load Out	1.96	0.93	0.24	-	-	-	-
Fugitive Dust Storage Piles - Wind Erosion	0.47	0.24	0.08	-	-	-	-
Fugitive Dust Unpaved Roads and Parking	24.01	4.68	0.55	-	-	-	-
Fugitive Dust for Basic Oxygen Furnace Pot Dumping (EU-05)	17.32	8.19	2.08	-	-	-	-
Fugitive Dust for Blast Furnace Pot Dumping (EU-06)	8.22	3.89	0.99	-	-	-	-
Insignificant Activities (heaters and generator)	1.32	1.32	1.32	1.50	19.0	2.90	4.0
TOTAL PTE for the Modification	70.64	23.72	6.27	1.50	19.10	2.90	4.10
Credits for Emission	34.96	13.0	0	0.0	0.0	0.0	0.0

Reductions from the Removal of two operations from MultiServ ⁽¹⁾ Plant							
Total for Modification after Project Netting and slag/kish Throughput Limit	23.69	6.58	6.27	1.50	19.10	2.90	4.10
PSD Significant Level	25.0	15.0	-	-	40.0	40.0	100.0
Emission Offset and Nonattainment NSR Significant Levels	-	-	10.0	40.0	-	-	-

* Project netting was utilized in the netting analysis, instead of the full blown netting where contemporaneous increases and decreases are considered in the analysis.

(1) - See Pages 10 through 13 of the spreadsheets for detailed calculation.

- (a) Based on the production rate of 2,000,000 tons/yr of slag/kish being processed, the controlled potential to emit is 70.64 PM/year and 23.72 PM10/year, both greater than the PSD significant levels of 25 tons/year and 15 tons/year, respectively. Emission credits of 34.96 tons PM/year and 13 tons PM10/year actual emissions from the shutdown and removal of MultiServ ferrous recovery plants (BOF#2 and BOF#4) and the portable ferrous recovery plant, have been utilized to reduce Tube City IMS emissions below the PSD significant levels. However, emission credits for PM were not enough to bring down emissions below 25 tons/year, so the slag/kish throughput has been limited as well to 1,620,000 tons/year. Therefore, this modification to an existing major stationary source (ArcelorMittal Steel USA – Indiana Harbor East) is not major because the emissions increase from each attainment pollutant is less than the PSD significant level. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This modification to an existing major stationary source is not major because the emissions increase from each nonattainment pollutant (PM2.5 and VOC) is less than the Nonattainment NSR and Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-1.1-5, Nonattainment NSR and 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

The following federal rules potentially applicable to the source are discussed below

- (a) New Source Performance Standards (NSPS)
 - (1) 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants - Tube City IMS is not subject to this NSPS since the slag being crushed and screened is not one of the nonmetallic minerals listed in the 40 CFR Part 60.671.
 - (2) 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) - Tube City IMS is not subject to this NSPS because there are no equipment or combination of equipment at the source that produces metallic mineral concentrates from ore.
 - (3) 40 CR Part 60, Subpart IIII - – New Source Performance Standards for Stationary compression Ignition Internal Combustion Engines. This rule applies to owners and operators of stationary CI ICE that commences construction after July 11, 2005 and will be manufactured after April 1, 2006 and are not fire pump engines.

The proposed 450 BHP diesel fired emergency generator with an engine displacement of 1.2 liters per cylinder, is subject to this NSPS since it will be manufactured after April 1, 2006 and it is not a fire pump engine.

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

40 CFR 60.4200(a)(2)(i)
40 CFR 60.4202(2)
40 CFR 60.4205(b)
40 CFR 60.4206
40 CFR 60.4207(a), (b)
40 CFR 60.4208(a),
40 CFR 60.4209
40 CFR 60.4211(a), (c), (e)
40 CFR 60.4212
40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 5
Table 8

(b) National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63):

- (1) 326 IAC 20-82 and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This subpart applies to any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

The proposed emergency generator (450 BHP), with a site rating of less than 500 brake HP is considered a new stationary RICE since it will commence construction after June 11, 2006. Therefore, it is subject to NESHAP, Subpart ZZZZ. However, it will meet the requirements of 40 CFR Part 60, Subpart IIII. No further requirements under 40 CFR Part 63, Subpart ZZZZ applies to the proposed 450 BHP emergency generator.

(c) Compliance Assurance Monitoring (CAM) (40 CFR Part 64.2)

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

- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

This rule is not applicable to Tube City IMS, because no emission unit has the potential to emit before controls equal to or greater than the Part 70 major source threshold and no control device is used to control emissions.

State Rule Applicability Determination

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

- (a) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

This rule is not applicable to Tube City IMS because VOC is not emitted at 25 tons per year or more.

- (b) 326 IAC 2-2, 326 IAC 2-3 and 326 IAC 2-1.1-5 (PSD, Emission Offset and Nonattainment NSR)

PSD, Emission Offset and Nonattainment NSR, applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

This modification (Tube City IMS operations) to an existing major stationary source (ArcelorMittal Steel USA – Indiana Harbor East) is not major because the emissions increase from each attainment pollutant (PM, PM10, NO_x and CO) and each nonattainment pollutant (PM2.5 and VOC) is less than the PSD, Nonattainment NSR and Emission Offset significant level, respectively, after consideration of the MultiServ ferrous recovery plants (BOF#2 and BOF#4) and the portable ferrous recovery plant shutdown and removal.

Additionally, the baghouse associated with the oxymethane flame cutting operation must be in operation to control the PM10 and PM2.5 emissions from this operation. The PM10 shall be limited to 1.41 pound per hour and 1.41 pound per hour for PM2.5

Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. ⁽¹⁾ - See Pages 4 of 17 and 10 through 13 of 17 of the spreadsheets for detailed calculations.

- (c) 326 IAC 2-6 (Emission Reporting)
Since Tube City IMS is part of ArcelorMittal Steel USA – Indiana Harbor East and is located in Lake County, and has a potential to emit NO_x and/or VOC greater than or equal to twenty-five (25) tons per year, an emission statement covering the previous calendar year must be submitted by July 1 of each year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

- (1) 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:

- (A) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (B) Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1(32)) (“Regulated pollutant which is used only for purposes of Section 19 of this rule”) from the source, for purposes of Part 70 fee assessment.

The statement must be submitted to:
Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue

MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (2) 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.
- (d) 326 IAC 6.8-8-1 (Continuous Compliance Plan)
This rule applies to specific sources listed in the rule, and Mittal Steel - Indiana Harbor East, now ArcelorMittal Steel USA- Indiana Harbor East is listed in this rule. Since Tube City is part of the source (ArcelorMittal Steel USA- Indiana Harbor East), it is therefore, subject to this rule. Likewise, this rule applies to sources located in Lake County with a total uncontrolled PM10 emissions of 10 tons per year or more. Tube City has uncontrolled PM10 emissions of 10 tons per year or more.
- (1) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant in accordance with the Continuous Compliance Plan (CCP). The Permittee shall maintain at the source a copy of the Continuous Compliance Plan (CCP) submitted to IDEM on September 2, 2008. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
 - (2) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ within thirty (30) days of the update.
 - (3) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8.
- Tube City IMS has submitted a Continuous Compliance Plan on September 2, 2008 as part of their air permit application.
- (e) 326 IAC 6.8-10-3 (Particulate Emission Limitation)
This rule applies to sources in Lake County with potential to emit five (5) tons per year of fugitive particulate matter, and for specific sources listed in the rule. This rule listed ISG-Indiana Harbor Inc., now ArcelorMittal Steel USA- Indiana Harbor East. Since Tube City is part of this source (ArcelorMittal Steel USA- Indiana Harbor East), it is therefore, subject to this rule. Likewise, Tube City has potential to emit five (5) tons per year of fugitive particulate matter.
- (1) Pursuant to 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:
 - (2) Paved roads and Parking Lots.
 - (A) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

- (i) The first shall be taken at the time of emission generation.
- (ii) The second shall be taken five (5) seconds later.
- (iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

- (B) The Permittee shall implement the control measures specified by 326 IAC 6.8-10-4 within twenty-four (24) hours after notification by the IDEM, OAQ or U.S.EPA of violating the average instantaneous opacity limit. A violation of the instantaneous average opacity limit is a violation of 326 IAC 6.8-10.
 - (C) When requested by the department or the U.S. EPA, after an exceedance of the opacity limit is observed by a representative of either agency, the source shall initiate a compliance check with the surface silt loading limit. The department may require a revision of the control plan under subsection 326 IAC 6.8-10-4, if the test shows an exceedance of the surface silt loading limit.
- (3) Material Transfer Limits.
- (A) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.
 - (B) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%) three (3) minute average. This includes material transfer to the initial hopper of a material processing facility as defined in 326 IAC 6.8-10-2 or material transfer for transportation within or outside the source property.
- Compliance with any operation lasting less than three (3) minutes shall be determined as an average of consecutive operations recorded at fifteen (15) second intervals for the duration of the operation.

(4) Inplant Transportation of Material by Truck or Rail

There shall be a zero (0) percent frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in plant transportation requirement. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car.

- (A) The PM_{10} emissions from building vents shall not exceed twenty-two

thousandths (0.022) grain per dry standard cubic foot. In addition, PM₁₀ emissions from building vents shall not exceed ten percent (10%) opacity.

Compliance with the concentration standard shall be determined by 40 CFR 60, Appendix A, Method 5 or 17, and with the opacity standard by 40 CFR 60, Appendix A, Method 9.

- (B) Dust Handling Equipment. The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%). Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.
- (5) Material processing facilities shall be subject to the following limits:
 - (A) The PM₁₀ stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot. In addition, PM₁₀ emissions from building vents shall not exceed ten percent (10%) opacity. Compliance with the concentration limitation shall be determined using the test methods found in 326 IAC 6.8-4. Compliance with the opacity limitation shall be determined by 40 CFR 60, Appendix A, Method 9*.
 - (B) The opacity of fugitive particulate emissions from a material processing facility, except crusher at which a capture system is not used, shall not exceed ten percent (10%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9*.
 - (C) There shall be a zero percent (0%) frequency of visible emission observations from a building enclosing all or a part of the material processing equipment except from a vent in the building. Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 22*.
 - (D) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot.

The Permittee submitted a Fugitive Dust Control Plan on September 2, 2008 as part of their application to comply with this rule.

- (f) 326 IAC 6.8-1-2 (Particulate Emission Limitations)
Each feeder, crusher, screen, conveyor, oxymethane flame cutting operation, emergency generator (insignificant activity) and space heaters (insignificant activity) is subject to 326 IAC 6.8-1-2(a), because the source has the potential to emit 100 tons per year or more and these emission units are not regulated under 326 IAC 6.8. This rule limits the particulate emissions from each feeder, crusher, screen, conveyor, oxymethane flame cutting operation, emergency generator (insignificant activity) and space heaters (insignificant activity) to seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per standard cubic foot (g/dscf)).
- (g) 326 IAC 5-1-2 Opacity Limitations
This rule is not applicable to the source because it is subject to the opacity limit in 326 IAC 6.8-10.
- (h) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(c)(3), the source is not subject to 326 IAC 6-3, because it is subject to 326 IAC 6.8.
- (i) 326 IAC 6-2 (Particulate Emission Limitation from Indirect Heating Units)
The one (1) 450 BHP emergency generator and two (2) direct heating space heaters each with 0.5 MMBtu/hr heat input rating classified as insignificant activities are not subject to

326 IAC 6-2, because they are not sources of indirect heating.

- (i) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
This rule applies stationary vessels used to store volatile organic liquid (VOC) that are located in Clark, Floyd Lake or Porter County.

The sources' storage tanks (classified as insignificant activities), each has a capacity of less than 39,000 gallons. These tanks are subject to the record keeping and reporting requirements under 326 IAC 8-9-6 and are exempt from all the provisions of this rule, 326 IAC 8-9. 326 IAC 8-9-6 requires the following:

- (1) The owner or operator of each vessel shall maintain a record and submit to the department the following information for each vessel:
 - (A) The vessel identification number.
 - (B) The vessel dimension.
 - (C) The vessel capacity.

Records shall be maintained for the life of the vessels.

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 and Monitoring Requirements applicable to this modification are as follows:

- (a) Implementation of the Fugitive Dust Control Plan, and
- (b) Implementation of Continuous Compliance Plan.
- (c) Application of water or use wet suppression system on an as needed basis to the slag aggregate stockpiles to control particulate emissions from the feeders, crushers, hoppers, screens and conveyors when processing the slag aggregate stockpiles.
- (d) Performance of moisture content analysis on the slag aggregate stockpiles as a percent of the dry weight.
- (e) Record keeping and reporting of the slag/kish processed.
- (f) Stack testing of the oxymethane flame cutting operation

- (g) Pressure drop monitoring of the baghouse associated with the oxymethane flame cutting operation.

These requirements are necessary to render 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (major nonattainment NSR) not applicable and to meet the limits in IAC 6.8.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached Part 70 Operating Permit No. 089-26806-00536 and Part 70 Significant Source Modification No. 089-28058-00536. The staff recommends to the Commissioner that this Significant Permit Modification be approved.

PM POTENTIAL TO EMIT

EF(front end loader) = 0.00880 lbs/ton (Source: Table 12.5-4, Batch drop low silt slag (uncontrolled), AP-42)
Control efficiency = 0.95333 (1-EF conveyor transfer controlled/EF conveyor transfer uncontrolled from Table 11.19.2-2)

EF(conveyor transfer uncontrolled) = 0.00300 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (uncontrolled), AP-42, 8/04) See footnote c
EF(conveyor transfer controlled) = 0.00014 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max/ Throughput (tons/hr)	Max. Amount Loaded or Transferred (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor %	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
TRANSFERS									
T1 - Load Grizzly grid (Batch transfer)	1000	2,000,000	8.800	17,600	8.80	95.3	0.411	821,392	0.411
T2 - Grid to pile	0	0	0.000	0	0.00		0.000	0.000	0.000
T3 - Grid to C1	1000	2,000,000	3.000	6,000	3.00		0.140	280,000	0.140
T4 - C1 to C2	1000	2,000,000	3.000	6,000	3.00		0.140	280,000	0.140
T5 - C2 to S1	1000	2,000,000	3.000	6,000	3.00		0.140	280,000	0.140
T6 - S1 to C3	163	326,000	0.489	978	0.49		0.023	45,640	0.023
T7 - C3 to pile	13	26,000	0.039	78	0.04		0.002	3,640	0.002
T8 - C3 to CR1/C5	150	300,000	0.450	900	0.45		0.021	42,000	0.021
T9 - CR1/C5 to C6	150	300,000	0.450	900	0.45		0.021	42,000	0.021
T10 - C6 to C7	150	300,000	0.450	900	0.45		0.021	42,000	0.021
T11 - S1 to C7	376	752,000	1.128	2,256	1.13		0.053	105,280	0.053
T12 - S1 to C42	460	920,000	1.380	2,760	1.38		0.064	128,800	0.064
T13 - C42 to C43	460	920,000	1.380	2,760	1.38		0.064	128,800	0.064
T14 - C43 to C44	460	920,000	1.380	2,760	1.38		0.064	128,800	0.064
T15 - C44 to C45	460	920,000	1.380	2,760	1.38		0.064	128,800	0.064
T16 - C45 to C23	138	276,000	0.414	828	0.41		0.019	38,640	0.019
T17 - C23 to C22	138	276,000	0.414	828	0.41		0.019	38,640	0.019
T18 - C22 to C14	264	528,000	0.792	1,584	0.79		0.037	73,920	0.037
T19 - C14 to S3	295	590,000	0.885	1,770	0.89		0.041	82,600	0.041
T20 - S3 to C15	74	148,000	0.222	444	0.22		0.010	20,720	0.010
T21 - C15 to pile	74	148,000	0.222	444	0.22		0.010	20,720	0.010
T22 - S3 to C16	74	148,000	0.222	444	0.22		0.010	20,720	0.010
T23 - C16 to pile	74	148,000	0.222	444	0.22		0.010	20,720	0.010
T24 - S3 to C17	148	296,000	0.444	888	0.44		0.021	41,440	0.021
T25 - C17 to pile	148	296,000	0.444	888	0.44		0.021	41,440	0.021
T26 - C7 to S2	813	1,626,000	2.439	4,878	2.44		0.114	22,760	0.114
T27 - S2 to C8	319	637,600	0.956	1,913	0.96		0.045	89,264	0.045
T28 - C8 to C14	31	62,000	0.093	186	0.09		0.004	8,680	0.004
T29 - C8 to C10	286	572,000	0.858	1,716	0.86		0.040	80,080	0.040
T30 - C10 to C11	286	572,000	0.858	1,716	0.86		0.040	80,080	0.040
T31 - C11 to CR2/C12	286	572,000	0.858	1,716	0.86		0.040	80,080	0.040
T32 - CR2/C12 to C13	286	572,000	0.858	1,716	0.86		0.040	80,080	0.040
T33 - C13 to C7	286	572,000	0.858	1,716	0.86		0.040	80,080	0.040
T34 - S2 to C18	495	990,000	1.485	2,970	1.48		0.069	138,600	0.069
T35 - C18 to C19	495	990,000	1.485	2,970	1.48		0.069	138,600	0.069
T36 - C19 to Bin SB1 with feeder	495	990,000	1.485	2,970	1.49		0.069	138,600	0.069
T37 - Feeder to C20	839	1,678,000	2.517	5,034	2.52		0.117	234,920	0.117
T38 - C20 to C21	128	256,000	0.378	756	0.38		0.018	35,280	0.018
T39 - C21 to C22	126	252,000	0.378	756	0.38		0.018	35,280	0.018
T40 - C20 to C24	713	1,426,000	2.139	4,278	2.14		0.100	199,640	0.100
T41 - C24 to C25	713	1,426,000	2.139	4,278	2.14		0.100	199,640	0.100
T42 - C25 to S4	356	712,000	1.068	2,136	1.07		0.050	99,680	0.050
T43 - C25 to S5	356	712,000	1.068	2,136	1.07		0.050	99,680	0.050
T44 - S4 to C26	86	172,000	0.258	516	0.26		0.012	24,080	0.012
T45 - S5 to C28	86	172,000	0.258	516	0.26		0.012	24,080	0.012
T46 - S4 to C26	86	172,000	0.258	516	0.26		0.012	24,080	0.012
T47 - S5 to C28	86	172,000	0.258	516	0.26		0.012	24,080	0.012
T48 - C28 to C27	172	344,000	0.516	1,032	0.52		0.024	48,160	0.024
T49 - C28 to C27	172	344,000	0.516	1,032	0.52		0.024	48,160	0.024
T50 - C27 to C29	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T51 - C29 to pile/feeder	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T52 - Feeders to C30	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T53 - C30 to C31	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T54 - C31 to CR3/C33	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T55 - C33 to C34	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T56 - C34 to Bin SB1 with feeder	344	688,000	1.032	2,064	1.03		0.048	96,320	0.048
T57 - S4 to C37	81	162,000	0.243	486	0.24		0.011	22,680	0.011
T58 - S5 to C35	81	162,000	0.243	486	0.24		0.011	22,680	0.011
T59 - C37 to C36	81	162,000	0.243	486	0.24		0.011	22,680	0.011
T60 - C35 to C36	81	162,000	0.243	486	0.24		0.011	22,680	0.011
T61 - C36 to C38	161	322,000	0.483	966	0.48		0.023	45,080	0.023
T62 - C38 to pile	161	322,000	0.483	966	0.48		0.023	45,080	0.023
T63 - S4 to C39	103	206,000	0.309	618	0.31		0.014	28,840	0.014
T64 - S5 to C39	103	206,000	0.309	618	0.31		0.014	28,840	0.014
T65 - C39 to C40	205	410,000	0.615	1,230	0.62		0.029	57,400	0.029
T66 - C40 to pile	495	990,000	1.485	2,970	1.48		0.069	138,600	0.069
T67 - C45 to C46	323	646,000	0.969	1,938	0.97		0.045	90,440	0.045
T68 - C46 to S6	323	646,000	0.969	1,938	0.97		0.045	90,440	0.045
T69 - S6 to C49	31	62,000	0.093	186	0.09		0.004	8,680	0.004
T70 - C49 to pile	31	62,000	0.093	186	0.09		0.004	8,680	0.004
T71 - S6 to C47	290	580,000	0.870	1,740	0.87		0.041	81,200	0.041
T72 - C47 to C48	290	580,000	0.870	1,740	0.87		0.041	81,200	0.041
T73 - C48 to C40	290	580,000	0.870	1,740	0.87		0.041	81,200	0.041
T74 - FEL to drag hopper	0	0	0.000	0	0.00		0.000	0.000	0.000
T75 - drag hopper to C41	0	0	0.000	0	0.00		0.000	0.000	0.000
T76 - C41 to C29	0	0	0.000	0	0.00		0.000	0.000	0.000
TOTAL (SLAG TRANSFERS)	21802		71,205	142,411	71,211		3,323	6,646	3,323

Note: T1 used a batch transfer from front end loader emission factor (EF), all the other transfer points used EF from belt conveyors that are continuous transfers.

EF(screening uncontrolled) = 0.025 lbs/ton (Source: Table 11.19.2-2, screening (uncontrolled), AP-42, 8/04) See footnote c
EF(screening controlled) = 0.0022 lbs/ton (Source: Table 11.19.2-2, screening (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max/ Throughput (tons/hr)	Max. Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
SCREENING									
S1 - Screen	1000	2,000,000	25.000	50,000	25.0		2.200	4,400	2.200
S2 - Screen	813	1,626,000	20.325	40,650	20.3		1.789	3,577	1.789
S3 - Screen	295	590,000	7.375	14,750	7.4		0.649	1,298	0.649
S4 - Screen	356	712,000	8.900	17,800	8.9		0.783	1,566	0.783
S5 - Screen	356	712,000	8.900	17,800	8.9		0.783	1,566	0.783
S6 - Screen	323	646,000	8.075	16,150	8.1		0.711	1,421	0.711
TOTAL (SCREENING)	3143		78,575	157,150	78,575		6,913	13,829	6,913

EF(crushing uncontrolled) = 0.0054 lbs/ton (Source: Table 11.19.2-2, tertiary crushing (uncontrolled), AP-42, 8/04) See footnotes c and g
EF(crushing controlled) = 0.0012 lbs/ton (Source: Table 11.19.2-2, tertiary crushing (controlled), AP-42) See footnotes c and g

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
CRUSHING									
CR1 - Jaw Crusher	150	300,000	0.810	1,620	0.810		0.180	360	0.180
CR2 - H S I Crusher	286	572,000	1.544	3,089	1.544		0.343	686	0.343
CR3 - V S I Crusher	344	688,000	1.858	3,715	1.858		0.413	826	0.413
TOTAL (CRUSHING)	780		4,212	8,424	4,212		0,936	1,872	0,936

	Uncontrolled			Controlled		
	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
Separator Plant Operations						
Transfers	71.21	142,411	71.2	3.32	6,646	3.32
Screening	78.58	157,150	78.6	6.91	13,829	6.91
Crushing	4.21	8,424	4.2	1.87	3,741	1.87
TOTAL PLANT	153.99	307,985	154.0	11.17	22,347	11.16

Note: The control efficiency of 95.3% for the conveying process was based on the AP-42, Table 11.19.2-2 emission factors (EF controlled / EF Uncontrolled - 1 * 100) using wet suppression.

PM10 POTENTIAL TO EMIT

EF(front end loader) = 0.00430 lbs/ton (Source: Table 12.5-4, Batch drop low silt slag (uncontrolled), AP-42)
Control efficiency = 0.95818 (1-Ef conveyor transfer controlled/Ef conveyor transfer uncontrolled from Table 11.19.2-2)

EF(conveyor transfer uncontrolled) = 0.00110 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (uncontrolled), AP-42, 8/04) See footnote c
EF(conveyor transfer controlled) = 0.00005 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Loaded or Transferred (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor %	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
TRANSFERS									
T1 - Load Grizzly grid (Batch transfer)	1000	2,000,000	4.300	8,600	4.30	95.8	0.180	359,652	0.180
T2 - Grid to pile	0	0	0.000	0	0.00		0.000	0.000	0.000
T3 - Grid to C1	1000	2,000,000	1.100	2,200	1.10		0.046	92,000	0.046
T4 - C1 to C2	1000	2,000,000	1.100	2,200	1.10		0.046	92,000	0.046
T5 - C2 to S1	1000	2,000,000	1.100	2,200	1.10		0.046	92,000	0.046
T6 - S1 to C3	163	326,000	0.179	359	0.18		0.007	14,996	0.007
T7 - C3 to pile	13	26,000	0.152	304	0.15		0.001	1,196	0.001
T8 - C3 to CR1/C5	150	300,000	0.165	330	0.17		0.007	13,800	0.007
T9 - CR1/C5 to C6	150	300,000	0.165	330	0.17		0.007	13,800	0.007
T10 - C6 to C7	150	300,000	0.165	330	0.17		0.007	13,800	0.007
T11 - S1 to C7	376	752,000	0.414	827	0.41		0.017	34,592	0.017
T12 - S1 to C42	460	920,000	0.506	1,012	0.51		0.021	42,320	0.021
T13 - C42 to C43	460	920,000	0.506	1,012	0.51		0.021	42,320	0.021
T14 - C43 to C44	460	920,000	0.506	1,012	0.51		0.021	42,320	0.021
T15 - C44 to C45	460	920,000	0.506	1,012	0.51		0.021	42,320	0.021
T16 - C45 to C23	138	276,000	0.152	304	0.15		0.006	12,696	0.006
T17 - C23 to C22	138	276,000	0.152	304	0.15		0.006	12,696	0.006
T18 - C22 to C14	264	528,000	0.290	581	0.29		0.012	24,288	0.012
T19 - C14 to S3	295	590,000	0.325	649	0.32		0.014	27,140	0.014
T20 - S3 to C15	74	148,000	0.081	163	0.08		0.003	6,808	0.003
T21 - C15 to pile	74	148,000	0.081	163	0.08		0.003	6,808	0.003
T22 - S3 to C16	74	148,000	0.081	163	0.08		0.003	6,808	0.003
T23 - C16 to pile	74	148,000	0.081	163	0.08		0.003	6,808	0.003
T24 - S3 to C17	148	296,000	0.163	326	0.16		0.007	13,616	0.007
T25 - C17 to pile	148	296,000	0.163	326	0.16		0.007	13,616	0.007
T26 - C7 to S2	813	1,626,000	0.894	1,789	0.89		0.037	74,796	0.037
T27 - S2 to C8	319	637,600	0.351	701	0.35		0.015	29,330	0.015
T28 - C8 to C14	31	62,000	0.034	68	0.03		0.001	2,852	0.001
T29 - C8 to C10	286	572,000	0.315	629	0.31		0.013	26,312	0.013
T30 - C10 to C11	286	572,000	0.315	629	0.31		0.013	26,312	0.013
T31 - C11 to CR2/C12	286	572,000	0.315	629	0.31		0.013	26,312	0.013
T32 - CR2/C12 to C13	286	572,000	0.315	629	0.31		0.013	26,312	0.013
T33 - C13 to C7	286	572,000	0.315	629	0.31		0.013	26,312	0.013
T34 - S2 to C18	495	990,000	0.545	1,089	0.54		0.023	45,540	0.023
T35 - C18 to C19	495	990,000	0.545	1,089	0.54		0.023	45,540	0.023
T36 - C19 to Bin SB1 with feeder	495	990,000	0.545	1,089	0.54		0.023	45,540	0.023
T37 - Feeder to C20	839	1,678,000	0.923	1,846	0.92		0.039	77,188	0.039
T38 - C20 to C21	126	252,000	0.139	277	0.14		0.006	11,592	0.006
T39 - C21 to C22	126	252,000	0.139	277	0.14		0.006	11,592	0.006
T40 - C20 to C24	713	1,426,000	0.784	1,569	0.78		0.033	65,596	0.033
T41 - C24 to C25	713	1,426,000	0.784	1,569	0.78		0.033	65,596	0.033
T42 - C25 to S4	356	712,000	0.392	783	0.39		0.016	32,752	0.016
T43 - C25 to S5	356	712,000	0.392	783	0.39		0.016	32,752	0.016
T44 - S4 to C26	86	172,000	0.095	189	0.09		0.004	7,912	0.004
T45 - S5 to C28	86	172,000	0.095	189	0.09		0.004	7,912	0.004
T46 - S4 to C26	86	172,000	0.095	189	0.09		0.004	7,912	0.004
T47 - S5 to C28	86	172,000	0.095	189	0.09		0.004	7,912	0.004
T48 - C28 to C27	172	344,000	0.189	378	0.19		0.008	15,824	0.008
T49 - C28 to C27	172	344,000	0.189	378	0.19		0.008	15,824	0.008
T50 - C27 to C29	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T51 - C29 to pile/feeder	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T52 - Feeder to C30	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T53 - C30 to C31	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T54 - C31 to CR3/C33	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T55 - C33 to C34	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T56 - C34 to Bin SB1 with feeder	344	688,000	0.378	757	0.38		0.016	31,648	0.016
T57 - S4 to C37	81	162,000	0.089	178	0.09		0.004	7,452	0.004
T58 - S5 to C35	81	162,000	0.089	178	0.09		0.004	7,452	0.004
T59 - C37 to C36	81	162,000	0.089	178	0.09		0.004	7,452	0.004
T60 - C35 to C36	81	162,000	0.089	178	0.09		0.004	7,452	0.004
T61 - C36 to C38	161	322,000	0.177	354	0.18		0.007	14,812	0.007
T62 - C38 to pile	161	322,000	0.177	354	0.18		0.007	14,812	0.007
T63 - S4 to C39	103	206,000	0.113	227	0.11		0.005	9,476	0.005
T64 - S5 to C39	103	206,000	0.113	227	0.11		0.005	9,476	0.005
T65 - C39 to C40	205	410,000	0.226	451	0.23		0.009	18,860	0.009
T66 - C40 to pile	495	990,000	0.545	1,089	0.54		0.023	45,540	0.023
T67 - C45 to C46	323	646,000	0.355	711	0.36		0.015	29,716	0.015
T68 - C46 to S6	323	646,000	0.355	711	0.36		0.015	29,716	0.015
T69 - S6 to C49	31	62,000	0.034	68	0.03		0.001	2,852	0.001
T70 - C49 to pile	31	62,000	0.034	68	0.03		0.001	2,852	0.001
T71 - S6 to C47	290	580,000	0.319	638	0.32		0.013	26,680	0.013
T72 - C47 to C48	290	580,000	0.319	638	0.32		0.013	26,680	0.013
T73 - C48 to C40	290	580,000	0.319	638	0.32		0.013	26,680	0.013
T74 - FEL to drag hopper	0	0	0.000	0	0.00		0.000	0.000	0.000
T75 - drag hopper to C41	0	0	0.000	0	0.00		0.000	0.000	0.000
T76 - C41 to C29	0	0	0.000	0	0.00		0.000	0.000	0.000
TOTAL (SLAG TRANSFERS)	21802		27,182	54,364	27,18		1,137	2,273	1,137

Note: T1 used a batch transfer from front end loader emission factor (EF), all the other transfer points used EF from belt conveyors that are continuous transfers.
EF(screening uncontrolled) = 0.0087 lbs/ton (Source: Table 11.19.2-2, screening (uncontrolled), AP-42, 8/04) See footnote c
EF(screening controlled) = 0.00074 lbs/ton (Source: Table 11.19.2-2, screening (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
SCREENING									
S1 - Screen	1000	2,000,000	8.700	17,400	8.7		0.740	1,480	0.740
S2 - Screen	813	1,626,000	7.073	14,146	7.1		0.602	1,203	0.602
S3 - Screen	295	590,000	2.567	5,133	2.6		0.218	437	0.218
S4 - Screen	356	712,000	3.097	6,194	3.1		0.263	527	0.263
S5 - Screen	356	712,000	3.097	6,194	3.1		0.263	527	0.263
S6 - Screen	323	646,000	2.810	5,620	2.8		0.239	478	0.239
TOTAL (SCREENING)	3143		27,344	54,688	27.3		2,328	4,652	2,326

EF(crushing uncontrolled) = 0.0024 lbs/ton (Source: Table 11.19.2-2, tertiary crushing (uncontrolled), AP-42, 8/04) See footnotes c and g.
EF(crushing controlled) = 0.00054 lbs/ton (Source: Table 11.19.2-2, tertiary crushing (controlled), AP-42) See footnotes c and g.

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
CRUSHING									
CR1 - Jaw Crusher	150	300,000	0.360	720	0.360		0.081	162	0.081
CR2 - H S I Crusher	286	572,000	0.686	1,373	0.686		0.154	309	0.154
CR3 - V S I Crusher	344	688,000	0.826	1,651	0.826		0.186	372	0.186
	0	0	0.000	0	0.000		0.000	0	0.000
TOTAL (CRUSHING)	780		1,872	3,744	1,872		0.421	842	0.421

Separator Plant Operations	Uncontrolled			Controlled		
	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
Transfers	27.18	54,364	27.2	1.14	2,273	1.14
Screening	27.34	54,688	27.3	2.33	4,652	2.32
Crushing	1.87	3,744	1.9	0.42	842	0.42
TOTAL PLANT	56.40	112,796	56.4	3.88	7,767	3.88

Note:
The control efficiency of 95.8% for the conveying process was based on the AP-42, Table 11.19.2-2 emission factors (EF controlled / EF Uncontrolled - 1 * 100) using wet suppression.

PM2.5 POTENTIAL TO EMIT

EF(front end loader) = 0.00160 lbs/ton (Source: Table 12.5-4, Batch drop low sll slag (uncontrolled), AP-42)
Control efficiency = 0.95300 (1-Ef conveyor transfer controlled/EF conveyor transfer uncontrolled from Table 11.19.2-2)

EF(conveyor transfer uncontrolled) = 0.00027 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (uncontrolled), AP-42, 8/04) See footnote c
EF(conveyor transfer controlled) = 0.00001 lbs/ton (Source: Table 11.19.2-2, conveyor transfer (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Loaded or Transferred (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor %	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
TRANSFERS									
T1 - Load Grizzly grid (Batch transfer)	1000	2,000,000	1.600	3,200	1.60	95.3	0.075	150,400	0.075
T2 - Grid to pile	0	0	0.000	0	0.00		0.000	0.000	0.000
T3 - Grid to C1	1000	2,000,000	0.270	540	0.27		0.013	26,000	0.013
T4 - C1 to C2	1000	2,000,000	0.270	540	0.27		0.013	26,000	0.013
T5 - C2 to S1	1000	2,000,000	0.270	540	0.27		0.013	26,000	0.013
T6 - S1 to C3	163	326,000	0.044	88	0.04		0.002	4,238	0.002
T7 - C3 to pile	13	26,000	0.007	14	0.01		0.000	0.338	0.000
T8 - C3 to CR1/C5	150	300,000	0.041	81	0.04		0.002	3,900	0.002
T9 - CR1/C5 to C6	150	300,000	0.041	81	0.04		0.002	3,900	0.002
T10 - C6 to C7	150	300,000	0.041	81	0.04		0.002	3,900	0.002
T11 - S1 to C7	376	752,000	0.102	203	0.10		0.005	9,776	0.005
T12 - S1 to C42	460	920,000	0.124	248	0.12		0.006	11,960	0.006
T13 - C42 to C43	460	920,000	0.124	248	0.12		0.006	11,960	0.006
T14 - C43 to C44	460	920,000	0.124	248	0.12		0.006	11,960	0.006
T15 - C44 to C45	460	920,000	0.124	248	0.12		0.006	11,960	0.006
T16 - C45 to C23	138	276,000	0.037	75	0.04		0.002	3,588	0.002
T17 - C23 to C22	138	276,000	0.037	75	0.04		0.002	3,588	0.002
T18 - C22 to C14	264	528,000	0.071	143	0.07		0.003	6,864	0.003
T19 - C14 to S3	295	590,000	0.080	159	0.08		0.004	7,670	0.004
T20 - S3 to C15	74	148,000	0.020	40	0.02		0.001	1,924	0.001
T21 - C15 to pile	74	148,000	0.020	40	0.02		0.001	1,924	0.001
T22 - S3 to C16	74	148,000	0.020	40	0.02		0.001	1,924	0.001
T23 - C16 to pile	74	148,000	0.020	40	0.02		0.001	1,924	0.001
T24 - S3 to C17	148	296,000	0.040	80	0.04		0.002	3,848	0.002
T25 - C17 to pile	148	296,000	0.040	80	0.04		0.002	3,848	0.002
T26 - C7 to S2	813	1,626,000	0.220	439	0.22		0.011	21,138	0.011
T27 - S2 to C8	319	637,600	0.086	172	0.09		0.004	8,289	0.004
T28 - C8 to C14	31	62,000	0.008	17	0.01		0.000	8,006	0.000
T29 - C8 to C10	286	572,000	0.077	154	0.08		0.004	7,436	0.004
T30 - C10 to C11	286	572,000	0.077	154	0.08		0.004	7,436	0.004
T31 - C11 to CR2/C12	286	572,000	0.077	154	0.08		0.004	7,436	0.004
T32 - CR2/C12 to C13	286	572,000	0.077	154	0.08		0.004	7,436	0.004
T33 - C13 to C7	286	572,000	0.077	154	0.08		0.004	7,436	0.004
T34 - S2 to C18	495	990,000	0.134	267	0.13		0.006	12,870	0.006
T35 - C18 to C19	495	990,000	0.134	267	0.13		0.006	12,870	0.006
T36 - C19 to Bin SB1 with feeder	495	990,000	0.134	267	0.13		0.006	12,870	0.006
T37 - Feeder to C20	839	1,678,000	0.227	453	0.23		0.011	21,814	0.011
T38 - C20 to C21	126	252,000	0.034	68	0.03		0.002	3,276	0.002
T39 - C21 to C22	126	252,000	0.034	68	0.03		0.002	3,276	0.002
T40 - C20 to C24	713	1,426,000	0.193	385	0.19		0.009	18,538	0.009
T41 - C24 to C25	713	1,426,000	0.193	385	0.19		0.009	18,538	0.009
T42 - C25 to S4	356	712,000	0.096	192	0.10		0.005	9,256	0.005
T43 - C25 to S5	356	712,000	0.096	192	0.10		0.005	9,256	0.005
T44 - S4 to C26	86	172,000	0.023	46	0.02		0.001	2,236	0.001
T45 - S5 to C28	86	172,000	0.023	46	0.02		0.001	2,236	0.001
T46 - S4 to C26	86	172,000	0.023	46	0.02		0.001	2,236	0.001
T47 - S5 to C28	86	172,000	0.023	46	0.02		0.001	2,236	0.001
T48 - C28 to C27	172	344,000	0.046	93	0.05		0.002	4,472	0.002
T49 - C28 to C27	172	344,000	0.046	93	0.05		0.002	4,472	0.002
T50 - C27 to C29	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T51 - C29 to pile/feeder	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T52 - Feeder to C30	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T53 - C30 to C31	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T54 - C31 to CR3/C33	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T55 - C33 to C34	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T56 - C34 to Bin SB1 with feeder	344	688,000	0.093	186	0.09		0.004	8,944	0.004
T57 - S4 to C37	81	162,000	0.022	44	0.02		0.001	2,106	0.001
T58 - S5 to C35	81	162,000	0.022	44	0.02		0.001	2,106	0.001
T59 - C37 to C36	81	162,000	0.022	44	0.02		0.001	2,106	0.001
T60 - C35 to C36	81	162,000	0.022	44	0.02		0.001	2,106	0.001
T61 - C36 to C38	161	322,000	0.043	87	0.04		0.002	4,186	0.002
T62 - C38 to pile	161	322,000	0.043	87	0.04		0.002	4,186	0.002
T63 - S4 to C39	103	206,000	0.028	56	0.03		0.001	2,678	0.001
T64 - S5 to C39	103	206,000	0.028	56	0.03		0.001	2,678	0.001
T65 - C39 to C40	205	410,000	0.055	111	0.06		0.003	5,330	0.003
T66 - C40 to pile	495	990,000	0.134	267	0.13		0.006	12,870	0.006
T67 - C45 to C46	323	646,000	0.087	174	0.09		0.004	8,398	0.004
T68 - C46 to S6	323	646,000	0.087	174	0.09		0.004	8,398	0.004
T69 - S6 to C49	31	62,000	0.008	17	0.01		0.000	8,006	0.000
T70 - C49 to pile	31	62,000	0.008	17	0.01		0.000	8,006	0.000
T71 - S6 to C47	290	580,000	0.078	157	0.08		0.004	7,540	0.004
T72 - C47 to C48	290	580,000	0.078	157	0.08		0.004	7,540	0.004
T73 - C48 to C40	290	580,000	0.078	157	0.08		0.004	7,540	0.004
T74 - FEL to drag hopper	0	0	0.000	0	0.00		0.000	0.000	0.000
T75 - drag hopper to C41	0	0	0.000	0	0.00		0.000	0.000	0.000
T76 - C41 to C29	0	0	0.000	0	0.00		0.000	0.000	0.000
TOTAL (SLAG TRANSFERS)	21802		7.216	14,433	7.22		0.346	691	0.346

Note: T1 used a batch transfer from front end loader emission factor (EF), all the other transfer points used EF from belt conveyors that are continuous transfers.
EF(screening uncontrolled) = ND lbs/ton (Source: Table 11.19.2-2, screening (uncontrolled), AP-42, 8/04) See footnote c
EF(screening controlled) = 0.00005 lbs/ton (Source: Table 11.19.2-2, screening (controlled), AP-42) See footnote c

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Average Throughput (tons/hr)	Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
SCREENING									
S1 - Screen	1000	2,000,000			0.0		0.050	100	0.050
S2 - Screen	813	1,626,000			0.0		0.041	81	0.041
S3 - Screen	295	590,000			0.0		0.015	30	0.015
S4 - Screen	356	712,000			0.0		0.018	36	0.018
S5 - Screen	356	712,000			0.0		0.018	36	0.018
S6 - Screen	323	646,000			0.0		0.016	32	0.016
TOTAL (SCREENING)	3143		0.000	0	0.0		0.157	314	0.157

EF(crushing uncontrolled) = ND lbs/ton (Source: Table 11.19.2-2, tertiary crushing (uncontrolled), AP-42, 8/04) See footnotes c and g.
EF(crushing controlled) = 0.0001 lbs/ton (Source: Table 11.19.2-2, tertiary crushing (controlled), AP-42) See footnotes c and g.

	Raw Material Throughputs		Uncontrolled Emissions			Controlled Emissions			
	Max. Throughput (tons/hr)	Max. Amount Screened (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Control Factor AP-42	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
CRUSHING									
CR1 - Jaw Crusher	150	300,000			0.000		0.015	30	0.015
CR2 - H S I Crusher	286	572,000			0.000		0.029	57	0.029
CR3 - V S I Crusher	344	688,000			0.000		0.034	69	0.034
	0	0			0.000		0.000	0	0.000
TOTAL (CRUSHING)	780		0.000	0	0.000		0.078	156	0.078

	Uncontrolled			Controlled		
	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lbs/yr)	Annual Emission Rate (tons/yr)
Separator Plant Operations	7.22	14,433	7.2	0.35	691	0.35
Transfers	0.00	0	0.0	0.16	314	0.16
Screening	0.00	0	0.0	0.08	156	0.08
Crushing	0.00	0	0.0	0.58	116	0.58
TOTAL PLANT	7.22	14,433	7.2	0.58	1,162	0.58

Note:
The control efficiency of 95.3% for the conveying process was based on the AP-42, Table 11.19.2-2 emission factors (EF controlled / EF Uncontrolled - 1 * 100) using wet suppression.

Oxymethane Cutting Emissions (12 Stations):

Material Processed	Revert Steel Scrap	
Amount	200,000	tons/year

Estimated metal removed during torch cutting.	0.5%
Estimated lbs/fume as PM/lb metal removed	2.1%
Estimate PM10/PM	97.0%
Estimate PM2.5/PM	86.0%
Baghouse control efficiency	97.0%

	Material tons/year	Total Uncontrolled Emissions		Total Controlled Emissions	
		lbs/hour	tons/year	lbs/hour	tons/year
Amount material processed	200,000				
Amount removed by cutting	1,000				
Amount fume created					
PM		4.8	21.00	1.41	6.19
PM10		4.7	20.37	1.41	6.19
PM2.5		4.0	18.06	1.41	6.19

Baghouse Grain Loading 0.003 grain/dscf
 Air Flow Rate 55,000 dscf/min

HAPs	Emission Factor mg/in ³	Emission Factor ton/tonPM	Uncontrolled Emission Rate tons/year
Antimony	22.1	0.00819	0.17
Lead	20.6	0.00763	0.16
Manganese	16.4	0.00607	0.13
Nickel	5.4	0.00200	0.04
Total HAPs Emissions			0.50

Methodology (Example calculations):

Conversion of EF, mg/in³ = 200,000 t/y * 5% metal removed* 1in³/0.284 lb
 = 7,042,000 in³ metal removed/yr
 Fume/Emissions = 7,042,000 in³/yr * 2.7 g fume/in³/lb/453.6 g*ton/2000 lb
 = 21 tons/yr
 1021 lb fume/lb metal * 453.6 g/lb * 0.284 lb/in³ = 2.7 g/in³
 HAP (Antimony) = 7,042,000 in³/yr * 21.1mg/m³lb/453593 mg*ton/2000lb
 = 0.17 tons/yr /21 tons PM/yr
 = 0.00819 ton/ton PM

Note:

Emission Factors used came from "Metal Cutting Operations: Emissions Factors for Particulates, Metals and Metal Ions" which was based on study undertaken by the Navy at Puget Sound Naval Shipyard. These emission factors are worse than the emission factors in SARA 313 Reporting Guide, "Clarification and Guidance for the Metal Fabrication Industry" - Oxygen Cutting Emissions page 16, Office of Toxic Substances, U.S. EPA, January 1990, which IDEM, OAQ normally use.

Natural Gas Fuel Combustion Emissions:	Potential Throughput
Heat Input Capacity (MMBtu/hr)	MMCF/yr
0.32	2.80

Methodology:

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr
 x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x EF (lb/MMCF)/2,000 lb/ton

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.1	0.0	0.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

ESTIMATE OF FUGITIVE DUST EMISSIONS FOR STORAGE PILES (EU03)

PTE

Emissions from Load-In:				UNCONTROLLED			CONTROLLED			PROD. (tons/yr)	UNCONTROLLED PTE			CONTROLLED PTE		
Stpl No.	Description	Ref.	m	PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)	PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)		PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)
1	Unprocessed BOF Slag & Scrap	2 & 3	0.92	0.017315	0.008190	0.002574	0.001732	0.000819	0.000257		0.00	0.00	0.00	0.00	0.000	0.000
2	Processed +16" Scrap and Slag	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
3	Processed 16" x 3.5" Scrap	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
4	Processed 3.5" x 3/8" EAF Scrap	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
5	Processed 3.5" x 3/8" EAF Slag	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
6	Processed 3/8"x #4 Scrap	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
7	Processed 3/8" x #4 EAF Slag	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
8	Processed #4 x 0" EAF Scrap & Slag	1	3.60	-	-	-	-	-	-		-	-	-	-	-	-
Emission Totals											0.00	0.00	0.00	0.000	0.000	0.000

NOTE: Load-in calculations are in EU05 BOF Pot Dumping

- Emissions from load-in to these storage piles have been included in the slag processing plant as conveyor transfer point emissions (from conveyor to the storage pile).

Varb.	Value	Units	Comments
k	0.74		Particle Size multiplier < 30 um (AP-42, Table 13.2.4-3, 1/95)
k'	0.35		Particle Size multiplier < 10 um (AP-42, Table 13.2.4-3, 1/95)
k ²	0.11		Particle Size multiplier < 2.5 um (AP-42, Table 13.2.4-3, 1/95)
u	10.01	MPH	Mean wind speed (default) (Data obtained from the National Weather - Cleveland, Ohio)
m	0.92	%	Unprocessed Material moisture content (AP-42, Table 13.2.4-1, 1/95)
m*	3.60	%	Processed Material moisture content (AP-42, Table 13.2.4-1, 1/95)

- Periodic application of water results in controlled emissions (90%) - AP-42, page 13.2.4-4, 1/95.
 m* - 3.6% moisture was also based on monthly sample testing, where results averaged at 5% and consistently at 4% moisture content. However, 3.6% was used to match the AP-42, Table 13.2.4-1.

Methodology:

PTE, lbs/hour = EF (lbs/ton) X Prod. (tons/hr)

PTE tons/year = (EF (lbs/ton) X Prod. (tons/yr)) / (2000 lbs/ 1 ton)

ESTIMATE OF FUGITIVE DUST EMISSIONS FOR STORAGE PILES (EU03)

PTE

Stpl No.	Description	Ref.	m	EMISSION FACTORS						POTENTIAL TO EMIT						
				UNCONTROLLED			CONTROLLED			PROD. (ton/year)	UNCONTROLLED			CONTROLLED		
				PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)	PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)		PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)
1	Unprocessed BOF Slag & Scrap	1 & 2	0.92	0.017315	0.008190	0.002574	0.001732	0.000819	0.000257	2,000,000	17.32	8.19	2.57	1.73	0.82	0.257
2	Processed +16" Scrap and Slag	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	80,000	0.10	0.05	0.02	0.01	0.00	0.002
3	Processed 16" x 3.5" Scrap	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	100,000	0.13	0.06	0.02	0.01	0.01	0.002
4	Processed 3.5" x 3/8" EAF Scrap	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	280,000	0.36	0.17	0.05	0.04	0.02	0.005
5	Processed 3.5" x 3/8" EAF Slag	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	100,000	0.13	0.06	0.02	0.01	0.01	0.002
6	Processed 3/8" x #4 Scrap	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	80,000	0.10	0.05	0.02	0.01	0.00	0.002
7	Processed 3/8" x #4 EAF Slag	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	100,000	0.13	0.06	0.02	0.01	0.01	0.002
8	Processed #4 x 0" EAF Scrap & Slag	1 & 2	3.60	0.002564	0.001213	0.000381	0.000256	0.000121	0.000038	1,080,000	1.38	0.65	0.21	0.14	0.07	0.021
Emission Totals											19.65	9.29	2.92	1.96	0.93	0.292

1) Reference AP-42, 13.2.4.3, Eq 1, 1/95.

$$EF = k \cdot (0.0032)^k \cdot (u/5)^{1.3} / (m/2)^{1.4}$$

(batch and continuous loading)

Varb.	Value	Units	Comments
k	0.74		Particle Size multiplier < 30 um (AP-42, Table 13.2.4-3, 1/95)
k'	0.35		Particle Size multiplier < 10 um (AP-42, Table 13.2.4-3, 1/95)
k ²	0.11		Particle Size multiplier < 2.5 um (AP-42, Table 13.2.4-3, 1/95)
u	10.01	MPH	Mean wind speed (default) (Data obtained from the National Weather - Cleveland, Ohio)
m	0.92	%	Unprocessed Material moisture content (AP-42, Table 13.2.4-1, 1/95)
m	3.60	%	Processed Material moisture content (AP-42, Table 13.2.4-1, 1/95)

2) Periodic application of water results in controlled emissions (90%) - AP-42, page 13.2.4-4, 1/95.

m* - 3.6 % moisture was also based on monthly sample testing, where results averaged at 5% and consistently at 4% moisture content. However, 3.6% was used to match the AP-42, Table 13.2.4-1.

Methodology:

$$PTE, \text{ lbs/hour calculation} = EF \text{ (lbs/ton)} \times \text{Prod. (tons/hr)}$$

$$PTE \text{ tons/year} = \{EF \text{ (lbs/ton)} \times \text{Prod. (tons/yr)}\} / (2000 \text{ lbs/ 1 ton})$$

ESTIMATE OF FUGITIVE DUST EMISSIONS FOR STORAGE PILES (EU03)

PTE

Emissions from Wind Erosion:

Storage Pile No.	Description	Storage Pile Area* acres A	PM-2.5 emission factor (1) TPY/acre B	PM-10 emission factor (1) TPY/acre C	PM emission factor (1) TPY/acre D	Control method	Control eff. % E	Emissions		
								PM A*D*(1-E/100)	PM-10 A*C*(1-E/100)	PM-2.5 A*B*(1-E/100)
1	Unprocessed BOF Slag & Scrap	0.79	0.4015	1.0038	2.0057	watering	90	0.158	0.0790	0.0316
2	Processed +16" Scrap and Slag	0.39	0.4015	1.0038	2.0057	watering	90	0.079	0.0395	0.0158
3	Processed 16" x 3.5" Scrap	-	(3)	(3)	(3)	None	NA	-	-	-
4	Processed 3.5" x 3/8" EAF Scrap	-	(3)	(3)	(3)	None	NA	-	-	-
5	Processed 3.5" x 3/8" EAF Slag	0.39	0.4015	1.0038	2.0057	watering	90	0.079	0.0395	0.0158
6	Processed 3/8"x #4 Scrap	-	(3)	(3)	(3)	None	NA	-	-	-
7	Processed 3/8" x #4 EAF Slag	0.39	0.4015	1.0038	2.0057	watering	90	0.079	0.0395	0.0158
8	Processed #4 x 0" EAF Scrap & Slag	0.39	0.4015	1.0038	2.0057	watering	90	0.079	0.0395	0.0158
	Total							0.474	0.237	0.095

*Row pile assumed with exposed surface area = $\pi*r*(\text{SQRT}(r^2 + h^2)) + (2*l*(\text{SQRT}(r^2 + h^2)))$, where r is radius of base(25 ft), h is height(20 ft) and l is the length of the ridge of the row(50 ft).

Note: This formula was based on AP-42, Chapter 11.2.3, dated 1/95,

$$EF = 1.7 * (s/1.5) * [(365-p) / 235] * (f/15) \text{ lb/day/acre}$$

$$s = 5.3 \text{ (per table 13.2.4-1), } p = 150 \text{ (per figure 13.2.2-1), } f = 30 \% \text{ (default)}$$

$$PM_{10} = 50\% \text{ of PM per AP-42, page 13.2.5-3, 1/95.}$$

$$PM_{2.5} = 20\% \text{ of PM per AP-42, page 13.2.5-3, 1/95.}$$

PM EF =	10.99	lbs PM/day/acre * 365/2000 =	2.0057	TPY per acre
PM10 EF =	5.5	lbs PM10/day/acre * 365/2000 =	1.0038	TPY per acre
PM2.5 EF =	2.2	lbs PM2.5/day/acre * 365/2000 =	0.4015	TPY per acre

(2) Two unprocessed piles assumed in storage at any given time.

(3) The iron/steel scrap piles do not have any wind erosion emissions. Only the slag piles have emissions from wind erosion.

ESTIMATE OF FUGITIVE DUST EMISSIONS FOR UNPAVED ROADWAYS & PARKING AREAS (EU04)

PTE

Section of Road	Vehicle	Production	Average Weight Per Load	Total Loads Per Year	Feet Per Leg	Miles Per Leg	Legs Per Trip	Unpaved Vehicle Miles Traveled
01 - Pot Carriers, Slag to Dump Station #4BOF	Pot Carrier	1,000,000	55.0	18,182	1,055	0.200	2	7,266
02 - Pot Carriers, Slag to Dump Station #2BOF Pots	Pot Carrier	1,000,000	55.0	18,182	100	0.019	2	689
03 - Pot Carriers, Slag to Dump Station BF Pots	Pot Carrier	750,000	55.0	13,636	100	0.019	2	517
04 - Loader, Slag to Unprocessed Stockpile	Cat 988	2,000,000	15.0	133,333	100	0.019	2	5,051
05 - Loader, Scrap to Dropball Operation	Cat 988	200,000	15.0	13,333	800	0.152	2	4,040
06 - Loader Unprocessed Slag to Slag Processing Plant	Cat 988	2,000,000	15.0	133,333	700	0.133	2	35,354
07 - Loader, Dropball Slag to Stockpiles	Cat 988	200,000	15.0	13,333	100	0.019	2	505
08 - Loader, Processed Slag/Scrap to Stockpiles	Cat 988	2,000,000	15.0	133,333	50	0.009	2	2,525
09 - From Aggregate Storage Piles to Off TCIMS site (to Mill Sinter)	50Ton OH Truck	1,200,000	50.0	24,000	2,640	0.500	2	24,000
10 - Loader, Processed Scrap to Off TCIMS site (to Mill BOF)	50Ton OH Truck	400,000	50.0	8,000	2,640	0.500	2	8,000
11 - Loader, Large Steel to Oxy-cutting	Cat 988	200,000	15.0	13,333	2,640	0.500	2	13,333
12 - Off-Highway Truck BOF Clean Up Material to Processing Area	50Ton OH Truck	100,000	50.0	2,000	2,640	0.500	2	2,000
13 - Off-Highway Truck Cut steel to Dropball or Off TCIMS site (to Mill BOF)	50Ton OH Truck	200,000	50.0	4,000	2,640	0.500	2	4,000
Total for Unpaved								107,279

Unpaved Roads	VMT/year	UNCONTROLLED			CONTROLLED			CONTROLLED			Uncontrolled		
		PM (lbs/VMT)	PM-10 (lbs/VMT)	PM-2.5 (lbs/VMT)	PM (lbs/VMT)	PM-10 (lbs/VMT)	PM-2.5 (lbs/VMT)	PM (tons/year)	PM-10 (tons/year)	PM-2.5 (tons/year)	PM (tons/year)	PM-10 (tons/year)	PM-2.5 (tons/year)
Unpaved Roads	107,279	2.24	0.44	0.064	0.448	0.087	0.013	24.01	4.68	0.68	120.07	23.40	3.42

Note: Assume an 80% control efficiency from the periodic application of water and/or other dust suppressants (OEPA RACM, 8/93 Table 2.1.1-3).
 It is assumed that the visible emissions restrictions of OAC rule 3745-17-12 & 13 are consistent with 80% control.

VMT - Vehicle Miles Traveled

ESTIMATE OF MEAN VEHICLE WEIGHT & SPEED

Vehicle	Weight Empty (tons)	Weight Full (tons)	Weight Avg. (tons)	Percentage of Site Traffic	Avg. Speed
Pot Carriers	152	207	179.5	7.43%	10.0
Off-Highway Trucks	39	89	64	35.42%	10.0
Rubber Tire Loader	31	31	31	56.88%	5.0
Total				99.53%	
Weighted Average (Mean)	42.68	64.48	53.58		7.12

Ref.

- 1 - Reference AP-42, 13.2.2.2 Eq (1), 9/98

UNPAVED ROADWAYS - PM Emission Factor =	2.239 lbs/VMT	Variable	Value	Units
Reference AP-42, 13.2.2.2 Eq (1), 9/98		S	7.1	mph
$E = S/15((k'(s/12)^a)/((W/3)^b)/((M/2)^c)/((365-p)/365))$		k	10	
		a	0.8	
		b	0.5	
		c	0.4	
		W	53.58	tons
		M	0.2	%
		s	1.5	%
		p	150	

UNPAVED ROADWAYS - PM10 Emission Factor =	0.436 lbs/VMT	Variable	Value	Units
Reference AP-42, 13.2.2.2 Eq (1), 9/98		S	7.1	mph
$E = S/15((k'(s/12)^a)/((W/3)^b)/((M/2)^c)/((365-p)/365))$		k	2.6	
		a	0.8	
		b	0.4	
		c	0.3	
		W	53.58	tons
		M	0.2	%
		s	1.5	%
		p	150	

UNPAVED ROADWAYS - PM2.5 Emission Factor =	0.064 lbs/VMT	Variable	Value	Units
Reference AP-42, 13.2.2.2 Eq (1), 9/98		S	7.1	mph
$E = S/15((k'(s/12)^a)/((W/3)^b)/((M/2)^c)/((365-p)/365))$		k	0.38	
		a	0.8	
		b	0.4	
		c	0.3	
		W	53.58	tons
		M	0.2	%
		s	1.5	%
		p	150	

ESTIMATE OF FUGITIVE DUST EMISSIONS FOR BOF POT DUMPING (EU05)

Emissions from Load-In:				EMISSION FACTORS						UNCONTROLLED/CONTROLLED			
				UNCONTROLLED			CONTROLLED			PROD. (ton/year)	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)
Stpl No.	Description	Ref.	m	PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)	PM EF (lbs/ton)	PM10 -EF (lbs/ton)	PM2.5 -EF (lbs/ton)				
1	Unprocessed BOF Slag	1	0.92	0.017315	0.008190	0.002574				2,000,000	17.32	8.19	2.57
Emission Totals											17.32	8.19	2.57

1) Reference AP-42, 13.2.4.3, Eq 1, EF=k*(0.0032)*((u/5)^1.3)/((m/2)^1.1) (batch and continuous loading)	Varb.	Value	Units	Comments
	k	0.74		Particle Size multiplier < 30 um (AP-42, Table 13.2.4-3, 1/95)
	k'	0.35		Particle Size multiplier < 10 um (AP-42, Table 13.2.4-3, 1/95)
	k ²	0.11		Particle Size multiplier < 2.5 um (AP-42, Table 13.2.4-3, 1/95)
	u	10.01	MPH	Mean wind speed (default) (Data obtained from the National Weather - Cleveland, Ohio)
	m	0.92	%	Unprocessed Material moisture content (AP-42, Table 13.2.4-1, 1/95)
	m	3.60	%	Processed Material moisture content (AP-42, Table 13.2.4-1, 1/95)

Methodology:

PTE, lbs/hour = EF (lbs/ton) X Prod. (tons/hr)

PTE, tons/year = {EF (lbs/ton) X Prod. (tons/yr)} / (2000 lbs/ 1 ton)

SUMMARY OF PM CONTROLLED/LIMITED EMISSIONS (TONS PM/YR)							
EMISSION UNITS		TUBE CITY IMS		MULTISERV AT THROUGHPUT TONNAGE FOR THE AVERAGE OF 2005 AND 2006			
		Main Plant	Main Plant	Main Plant	Portable	Iron Plant	HMS Sum
		1,620,000 Limited Throughput tons/year	2,000,000 Throughput tons/year	964,000 tons/year	209,000 tons/year	123,000 tons/year	tons/year
EU01	SLAG TRANSFERS	2.67	3.30	0.84	0.11	0.09	1.04
	SCREENING	5.59	6.90	1.75	0.23	0.16	2.14
	CRUSHING	0.76	0.94	0.16	0.00	0.00	0.16
EU02	SCRAP CUTTING	6.20	6.20	0.00	0.00	0.00	0.00
EU03	STORAGE PILES LOAD-IN (FUGITIVE)	Included in EU-05 BOF Pot Dumping					
	FUGITIVE DUST STORAGE PILES LOAD-OUT	1.59	1.96	0.96	0.05	0.12	1.13
	FUGITIVE DUST STORAGE PILES-WIND EROSION	0.38	0.47	0.53	0.16	0.37	1.06
EU04	FUGITIVE DUST UNPAVED ROADS AND PARKING	19.45	24.01	8.78	1.84	1.18	11.80
EU05	FUGITIVE DUST FOR BASIC OXYGEN FURNACE POT DUMPING	14.03	17.32	8.35	0.00	1.06	9.41
EU06	FUGITIVE DUST FOR BLAST FURNACE POT DUMPING	6.66	8.22	8.22	0.00	0.00	8.22
	INSIGNIFICANT ACTIVITIES (Heaters and generator)	1.32	1.32				
TOTAL tons PM/year		58.65	70.64	29.59	2.39	2.98	34.96

TCIMS PM Emissions Increase After the Removal of Heckett MultiServ	23.69	35.68	still greater than 25 tons/yr (significant level) after the emission credits. Therefore, the throughput was limited to 1,620,000 tons/yr to limit the PM to 23.69 tons/yr
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Methodology:

Ind. E. Unit Emissions Limit, ton/yr =

Limited throughput/Unlimited Throughput * PTE unlimited fr. Ind. E. Unit

Heckett MultiServ Actual Throughput, Inventory Years 2005 and 2006 From IDEM Office of Air Quality, Programs Branch						
Inventory Year	County	Facility ID	Emission Unit	Emission Process Description	Actual Throughput	Units
2005	18089	00367	001	Main Proc Plnt	1,026,510	tons
			005	Iron Plant	122,624	tons
			006	Portable Plant	171,852	tons
2006	18089	00367	001	Main Proc Plnt	901,068	tons
			005	Iron Plant	122,624	tons
			006	Portable Plant	246,560	tons
Average of 2005 and 2006			001	Main Proc Plnt	963,789	tons
			005	Iron Plant	122,624	tons
			006	Portable Plant	209,206	tons

SUMMARY OF PM10 EMISSIONS (TONS PM10/YR)							
EMISSION UNITS		TUBE CITY IMS		MULTISERV AT THROUGHPUT TONNAGE FOR THE AVERAGE OF 2005 AND 2006			
		Main Plant 1,620,000 Limited Throughput tons/year	Main Plant 2,000,000 Throughput tons/year	Main Plant 964,000 tons/year	Portable 209,000 tons/year	Iron Plant 123,000 tons/year	HMS Sum tons/year
EU01	SLAG TRANSFERS	0.92	1.14	0.31	0.04	0.03	0.38
	SCREENING	1.86	2.30	0.59	0.08	0.04	0.71
	CRUSHING	0.34	0.42	0.07	0.00	0.00	0.07
EU02	SCRAP CUTTING	0.61	0.61	0.00	0.00	0.00	0.00
EU03	STORAGE PILES LOAD-IN (FUGITIVE)	Included in EU-05 BOF Pot Dumping					
	FUGITIVE DUST STORAGE PILES LOAD-OUT	0.75	0.93	0.45	0.03	0.06	0.54
	FUGITIVE DUST STORAGE PILES-WIND EROSION	0.19	0.24	0.26	0.11	0.18	0.55
EU04	FUGITIVE DUST UNPAVED ROADS AND PARKING	3.79	4.68	1.73	0.36	0.23	2.32
EU05	FUGITIVE DUST FOR BASIC OXYGEN FURNACE POT DUMPING	6.63	8.19	3.95	0.00	0.50	4.45
EU06	FUGITIVE DUST FOR BLAST FURNACE POT DUMPING	3.15	3.89	3.98	0.00	0.00	3.98
	INSIGNIFICANT ACTIVITIES (Heaters and generator)	1.32	1.32				
TOTAL tons PM10/year		19.58	23.72	11.34	0.62	1.04	13.00
TCIMS PM10 Emissions Increase After the Removal of Heckett MultiServ		6.58	10.72				

Methodology:
 Ind. E. Unit Emissions Limit, ton/yr =
 Limited throughput/Unlimited Throughput
 * PTE unlimited fr. Ind. E. Unit

Heckett MultiServ Actual Throughput, Inventory Years 2005 and 2006 From IDEM Office of Air Quality, Programs Branch							
Inventory Year	County	Facility ID	Emission Unit	Emission Process Description	Actual Throughput	Units	
2005	18089	00367	001	Main Proc Plnt	1,026,510	tons	
			005	Iron Plant	122,624	tons	
			006	Portable Plant	171,852	tons	
2006	18089	00367	001	Main Proc Plnt	901,068	tons	
			005	Iron Plant	122,624	tons	
			006	Portable Plant	246,560	tons	
Average of 2005 and 2006			001	Main Proc Plnt	963,789	tons	
			005	Iron Plant	122,624	tons	
			006	Portable Plant	209,206	tons	

SUMMARY OF PM2.5 EMISSIONS (TONS PM10/YR)			
EMISSION UNITS		TUBE CITY IMS	
		Main Plant	Main Plant
		1,620,000 Limited Throughput	2,000,000 Throughput
		tons/year	tons/year
EU01	SLAG TRANSFERS	0.28	0.35
	SCREENING	0.13	0.16
	CRUSHING	0.06	0.08
EU02	SCRAP CUTTING	0.54	0.54
EU03	STORAGE PILES LOAD-IN (FUGITIVE)	Included in EU-05 BOF Pot Dumping	
	FUGITIVE DUST STORAGE PILES LOAD-OUT	0.24	0.29
	FUGITIVE DUST STORAGE PILES-WIND EROSION	0.08	0.10
EU04	FUGITIVE DUST UNPAVED ROADS AND PARKING	0.55	0.68
EU05	FUGITIVE DUST FOR BASIC OXYGEN FURNACE POT DUMPING	2.08	2.57
EU06	FUGITIVE DUST FOR BLAST FURNACE POT DUMPING	0.99	1.22
	INSIGNIFICANT ACTIVITIES (Heaters and generator)	1.32	1.32
TOTAL tons PM2.5/year		6.27	7.31

Methodology:

Emission Unit Limited PTE, tons/yr = Limited throughput/Unlimited throughput * Unlimited PTE from Emission Unit

Appendix A: Emissions Calculations

Waste Oil Combustion

Space Heater-Atomizing Burner

Company Name: Tube City IMS

Address City IN Zip: 3236 Watling Street, East Chicago 46312

Part 70 Operating Permit No.: T089-26806

Significant Source Modification No.: 089-28058

Plt ID: 089-00536

Reviewer: Aida De Guzman

Date Application: 28-Jul-2008

Heat Input Capacity

MMBtu/hr

1.00

Potential Throughput

kgals/year

63.02

A = Weight % Ash =

0.01

S = Weight % Sulfur =

0.5

2 direct fired heaters each 0.5 MMBtu/hr

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2	NOx	TOC	CO
0.7 (66A)	0.57 (57A)	53.5 (107S)	16.0	1.0	2.10	
Potential Emission in tons/yr	0.021	0.018	1.7	0.5	0.0	0.1

*No information was given in AP-42 regarding whether the PM/PM10 emission factors included filterable and condensable PM.

Methodology

Emission Factor Units are lb/1000 gal

A = weight% ash in fuel, L = weight% lead in fuel, S = weight % sulfur in fuel

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.139 MM Btu

Emission Factors from AP-42, Chapter 1.11 SCC 1-05-001-13 and 1-05-002-13 (Supplement B 10/96)

Emission (tons/yr) = Throughput kgals per year x Emission Factor (lb/kgal)/2,000 lb/ton

Appendix A: Emissions Calculations

Waste Oil Combustion

Space Heater-Atomizing Burner

HAPs Calculations

Company Name: Tube City IMS

Address City IN Zip: 3236 Watling Street, East Chicago 46312

Part 70 Operating Permit No.: T089-26806

Significant Source Modification No.: 089-28058

Plt ID: 089-00536

Reviewer: Aida De Guzman

Date Application: 28-Jul-2008

HAPs - Metals					
Emission Factor in lb/kgal	Arsenic 6.0E-02	Cadmium 1.2E-02	Chromium 1.8E-01	Manganese 5.0E-02	Nickel 1.6E-01
Potential Emission in tons/yr	1.89E-03	3.78E-04	5.67E-03	1.58E-03	5.04E-03

HAPs - Organics					
Emission Factor in lb/kgal	Phenol 2.8E-05	Naphthalene 9.2E-05	Phenanthrene/ anthracene 1.0E-04	Dibutylphthalate 3.4E-05	Pyrene 8.3E-06
Potential Emission in tons/yr	8.82E-07	2.90E-06	3.15E-06	1.07E-06	2.62E-07
Worst Single HAP (chromium)					5.67E-03
Combined HAPs					1.46E-02

Methodology is the same as previous page.

The five metal and five organic HAPs with the highest emission factors are presented above.

Additional emission factors for additional HAPs with smaller emission factors are available in AP-42, 5th edition (Supplement B 10/96).

**Appendix A: Emissions Calculations
Industrial Diesel Engines
#1 and #2 Fuel Oil**

Company Name: Tube City IMS
Address City IN Zip: 3236 Watling Street, East Chicago 46312
Part 70 Operating Permit No.: T089-26806
Significant Source Modification No.: 089-28058
Plt ID: 089-00536
Reviewer: Aida De Guzman
Date Application: 28-Jul-2008

Heat Input Capacity
MMBtu/hr

Horsepower Rating

450

0.96

generator

Emission Factor in lb/MMBtu	Pollutant				
	PM*	SO2	NOx	VOC	CO
0.3	0.29	4.4	0.35	1.0	
Potential Emission in tons/yr	1.3	1.2	18.5	1.5	4.0

Methodology:

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Emission Factors are from AP 42, Tables 3.3-1, AP-42 10/96

Emission (tons/yr) = Heat input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hrs/yr x ton/2,000 lb

Appendix A: Emissions Calculations

Industrial Diesel Engines

#1 and #2 Fuel Oil

HAPs Emissions

Company Name: Tube City IMS

Address City IN Zip: 3236 Watling Street, East Chicago 46312

Part 70 Operating Permit No.: T089-26806

Significant Source Modification No.: 089-28058

Plt ID: 089-00536

Reviewer: Aida De Guzman

Date Application: 28-Jul-2008

Heat Input Capacity
MMBtu/hr

Horsepower Rating

450

0.96

generator

HAPs - Metals

	Propylene	Benzene	Toluene	Xylenes	Acetaldehyde	Formaldehyde
Emission Factor in lb/mmBtu	2.6E-03	9.3E-04	4.1E-04	2.9E-04	7.7E-04	1.2E-03
Potential Emission in tons/yr	1.08E-02	3.92E-03	1.72E-03	1.20E-03	3.23E-03	4.96E-03
	Worst Single HAP					1.08E-02
	Combined HAPs					2.59E-02

Methodology:

Emission Factors are from AP 42, Tables 3.3-2, AP-42 10/96

Emission (tons/yr) = Heat input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hrs/yr x ton/2,000 lb