



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: March 31, 2008

RE: Atlas Foundry Company, Inc. / 053-25079-00002

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Mr. Pat Gartland
Atlas Foundry Company, Inc.
P. O. Box 688
Marion, Indiana 46952

March 31, 2008

Re: 053-25079-0002
First Significant Permit Revision to
FESOP No. 053-12834-0002

Dear Mr. Gartland:

Atlas Foundry Company, Inc. was issued a FESOP renewal permit on July 6, 2004, for a stationary gray and ductile iron foundry. A letter requesting significant permit revision to this permit was received by IDEM, OAQ on August 31, 2007, with supplemental information provided on September 21, 2007. In response to the August 11, 2006, Indiana Department of Environmental Management (IDEM) document, "Notice of Self-Disclosure for CO Emissions from PCS Operations within the Foundry Sector", the applicant requested a carbon monoxide (CO) emission limit and production limit to render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable. This revision consists of limiting the foundry's metal charge throughput to 37,300 tons per year and using a source specific CO emission factor for pouring, cooling, and shakeout (PCS) operations of 4.88 lbs per ton of metal charge.

Pursuant to the provisions of 326 IAC 2-8-11(f), a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document. All other conditions of the permit shall remain unchanged and in effect. Attached is the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Swarna Prabha, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call at (317) 234-5376, ext. 45376 or dial (800) 451-6027

Sincerely/Original Signed By:

Mathew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit and Revised Emission calculations

MS/sp

cc: File - Grant County
Air Compliance Section Inspector – Ryan Hillman
Compliance Data Section
Administrative and Development
Technical Support and Modeling
Billing, Licensing, and Training Section - Dan Stamatkin



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**Atlas Foundry Company, Inc.
Factory and Henderson Avenues
Marion, Indiana 46952**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 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 new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Operation Permit No.: F 053-12834-00002	
Original Issued by: Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: July 6, 2004 Expiration Date: July 6, 2009

First Administrative Amendment, No. 053-22350-00002, Issued on February 1, 2006.

First Significant Permit Revision No. 053-25079-00002	Pages Affected: Entire Permit
Issued by/Original Signed By: Mathew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: March 31, 2008 Expiration Date: July 6, 2009

SECTION A	SOURCE SUMMARY	6
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
SECTION B	GENERAL CONDITIONS	9
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3 (h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Provide Information [326 IAC 2-8-4(5)(E)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.11	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.12	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.13	Emergency Provisions [326 IAC 2-8-12]	
B.14	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.15	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]	
B.16	Permit Renewal [326 IAC 2-8-3(h)]	
B.17	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.18	Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]	
B.19	Source Modification Requirement [326 IAC 2-8-11.1]	
B.20	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]	
B.21	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]	
B.23	Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]	
SECTION C	SOURCE OPERATION CONDITIONS	18
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]	
C.2	Overall Source Limit [326 IAC 2-8] [326 IAC 2-2]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.8	Stack Height [326 IAC 1-7]	
C.9	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.10	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.11	Compliance Requirements [326 IAC 2-1.1-11]	
	Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]	
C.12	Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]	
C.13	Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]	

- C.14 Instrument Specifications [326 IAC 2-1.1-11]
[326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.16 Response to Excursions or Exceedences [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

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

SECTION D.1 FACILITY OPERATION CONDITIONS: Charge Handling & Melting Operations (Baghouse E)..... 25

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]
- D.1.2 Particulate [326 IAC 6-3-2]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.5 Particulate Control
- D.1.6 Visible Emissions Notations
- D.1.7 Parametric Monitoring
- D.1.8 Reserved
- D.1.9 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS: Shakeout, Pouring, Casting, Cooling, Sand Handling, Shot Blasting & Grinding Operations (Baghouse D and Scrubber C)..... 28

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.2.1 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]
- D.2.2 Particulate [326 IAC 6-3-2]
- D.2.3 VOC Limitation [326 IAC 8-1-6]
- D.2.4 HAP Limitations [326 IAC 2-8-4]
- D.2.5 Carbon Monoxide (CO) [326 IAC 2-2] [326 IAC 2-8]
- D.2.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.2.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.2.8 Particulate Control

- D.2.9 Visible Emissions Notations
- D.2.10 Parametric Monitoring
- D.2.11 Broken or Failed Bag Detection
- D.2.12 Reserved
- D.2.13 Scrubber Failure

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.2.14 Record Keeping Requirements
- D.2.15 Reporting Requirements

SECTION D.3 FACILITY OPERATION CONDITIONS: Grinding & Shotblasting Operations..... 34

General Construction Conditions

- D.3.1 Permit No Defense

Effective Date of the Permit

- D.3.2 Effective Date of the Permit [IC13-15-5-3]
- D.3.3 Modification to Construction Conditions [326 IAC 2]

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.3.4 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]
- D.3.5 Particulate [326 IAC 6-3-2]
- D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.3.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.3.8 Particulate Control
- D.3.9 Visible Emissions Notations
- D.3.10 Parametric Monitoring
- D.3.11 Reserved
- D.3.12 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.3.13 Record Keeping Requirements

SECTION D.4 FACILITY OPERATION CONDITIONS: Core Making Operations..... 37

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.4.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]
- D.4.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.4.3 Record Keeping Requirements
- D.4.4 Reporting Requirements

SECTION D.5 FACILITY CONDITIONS: Insignificant Activities..... 38

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.5.1 Particulate [326 IAC 6-3-2]
- D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]
- D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-6]

Certification 41

Emergency Occurrence Report 42

FESOP Quarterly Reports	44
Quarterly Deviation and Compliance Monitoring Report.....	50

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 2-8-3(b)]

The Permittee owns and operates a stationary gray and ductile iron foundry.

Source Address:	Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address:	P.O. Box 688, Marion, Indiana 46952
General Source Phone:	765-662-2525
SIC Code:	3321
County Location:	Grant
Source Location status:	Attainment area for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) Two (2) electric induction furnaces, equipped with a baghouse, known as baghouse E, installed in 1996, exhausted through Stack E, capacity: 4.4 tons of iron per hour, each.
- (b) Two (2) charge handling systems, equipped with a baghouse, known as baghouse E, installed in 1996 and 2000, exhausted through Stack E, capacity: 4.4 tons of iron per hour, each.
- (c) One (1) Aisco rotary drum shakeout operation, equipped with a wet scrubber, known as wet scrubber C, installed in 1982, exhausted through Stack C, capacity: 10 tons of iron and 60 tons of sand per hour.
- (d) One (1) Disa #1 pouring/casting line, 90% of emissions captured by baghouse D, installed in 1982, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (e) One (1) Disa #1 castings cooling process, equipped with a baghouse, known as baghouse D, installed in 1982, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (f) One (1) Disa #1 sand handling process, equipped with a baghouse, known as baghouse D, installed in 1982, exhausted through Stack D, capacity: 65 tons of sand per hour.
- (g) One (1) Disa #2 pouring/casting line, 90% of emissions captured by baghouse D installed in 2000, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (h) One (1) Disa #2 castings cooling process, equipped with a baghouse, known as baghouse D, installed in 2000, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (i) One (1) Disa #2 sand handling process, equipped with a baghouse, known as baghouse D, installed in 2000, exhausted through Stack D, capacity: 65 tons of sand per hour.

- (j) One (1) Didion rotary media shakeout drum, equipped with a baghouse, known as baghouse D, installed in 1999, exhausted through Stack D, capacity: 10 tons of iron and 0.2 tons of sand per hour.
- (k) Two (2) shotblast operations, equipped with a baghouse, known as baghouse D, installed in 1963 (Atlas) and 1982 (Peru), exhausted through Stack D, capacity: 5.0 tons of iron per hour, each.
- (l) One (1) mesh belt shotblast machine, equipped with a baghouse, known as baghouse D installed in 1999, exhausted through Stack D, capacity: 5.0 tons of iron castings and 1.25 tons of steel shot per hour.
- (m) Three (3) stand grinders, equipped with a baghouse, known as baghouse A, installed in 1993, 1993 and 1994, exhausted through Stack A, capacity: 2.67 tons of iron per hour, each.
- (n) One (1) belt sander, equipped with a baghouse, known as baghouse D, installed in 2002, capacity: 2.0 tons of iron per hour.
- (o) One (1) Isocure (phenolic urethane cold box) core-system, consisting of two (2) Isocure core machines, one (1) Isocure sand mixer, one (1) sand heater, one (1) sand storage bin (1,000 pounds of sand capacity), a cold sand silo (28 tons capacity) equipped with a filter for PM control, and a pneumatic sand conveying system, installed in 1985, exhausted through Stacks S1, S2 and S4, capacity: 0.75 tons of cores per hour, total.
- (p) One (1) shell (phenolic hot box) core system, consisting of seven (7) shell core machines, four (4) sand conveyors, and two (2) sand silos; four (4) shell core machines installed in 1960, two (2) shell core machines installed in 1983, and one (1) shell core machine installed in 2007, capacity: 28 tons of sand for each silo and 1.0 ton of cores per hour, total.
- (q) One (1) continuous blast steel shotblaster, known as continuous blast, equipped with a baghouse, known as baghouse A, installed in 2004, exhausted through Stack A, capacity: 10.0 tons of iron per hour.
- (r) One (1) stand grinder, identified as SG#4, installed in 2006, equipped with a baghouse, known as baghouse D, exhausted through Stack D, capacity: 2.67 tons of iron per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(l)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion units, rated at a total of 4.509 million British thermal units per hour.
- (b) Storage tanks with capacities less than 1,000 gallons.
- (c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses and filter in other air filtration equipment.
- (e) Paved and unpaved roads and parking lots with public access.
- (f) Gasoline generators not exceeding 110 horsepower.

- (g) Grinding and machining operations (326 IAC 6-3-2).
- (h) Mold release agents using low volatile products.
- (i) Combustion source flame safety purging on startup.
- (j) Refractory storage not requiring air pollution control equipment.
- (k) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6 (326 IAC 8-3-3) (326 IAC 8-3-6).
- (l) Forced and induced draft cooling tower system not regulated under a NESHAP.
- (m) Heat exchanger, cleaning and repair.
- (n) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (o) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (p) One (1) diesel fired emergency generator rated at 400 output horsepower, not to exceed five hundred (500) hours of operation per year.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

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.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]

(a) This permit, F053-12834-00002, 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 until the renewal permit has been issued or denied.

B.4 Enforceability [326 IAC 2-8-6]

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

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.8 Duty to Provide Information [326 IAC 2-8-4(5)(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (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 an authorized individual of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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. All 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

- (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 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.13 Emergency Provisions [326 IAC 2-8-12]

- (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, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

- (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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 2-8-3(c)(6) 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 2-8 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) Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP 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 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (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 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d) 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 approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under 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 emissions **trades** that are subject to 326 IAC 2-8-15(b) through (d). 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 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(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 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)] [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 FESOP 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, at reasonable times, any records that must be kept under the condi-

tions 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, at reasonable times, 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, at reasonable times, 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.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [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) 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 (BLT)), to determine the appropriate permit fee.

B.23 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment and insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if

construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction work is suspended for a continuous period of one (1) year or more.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

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

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

C.2 Overall Source Limit [326 IAC 2-8][326 IAC 2-2]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

C.4 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.5 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.6 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).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 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 61-53 IGCN 1003
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.11 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 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 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.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(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 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.16 Response to Excursions or Exceedences [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) 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.

Stratospheric Ozone Protection

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

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Charge Handling and Melting Operations (Baghouse E)

- (a) Two (2) electric induction furnaces, equipped with a baghouse, known as baghouse E, installed in 1996, exhausted through Stack E, capacity: 4.4 tons of iron per hour, each.
- (b) Two (2) charge handling systems, equipped with a baghouse, known as baghouse E, installed in 1996 and 2000, exhausted through Stack E, capacity: 4.4 tons of iron per hour, each.

(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 2-8-4(1)]

D.1.1 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]

- (a) The total combined metal throughput to the two (2) electric induction furnaces shall not exceed 37,300 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The PM emission rate from baghouse E associated with the two (2) electric induction furnaces and the two (2) charge handling systems shall not exceed a total of 0.210 pounds per ton of metal charged and melted.
- (c) The PM₁₀ emission rate from baghouse E associated with the two (2) electric induction furnaces and the two (2) charge handling systems shall not exceed a total of 0.336 pounds per ton of metal charged and melted.
- (d) Compliance with the above limits renders the requirements of 326 IAC 2-2 not applicable.
- (e) Compliance with the limits in (a) and (c) also satisfies the requirements of 326 IAC 2-8-4 for the entire source.

D.1.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the baghouse E associated with the electric induction furnaces and charge handling operations shall not exceed 28.0 pounds per hour when operating at a total process weight rate of 17.6 tons per hour.

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

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

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

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

By August 28, 2006 in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM₁₀ testing of baghouse E associated with the charge handling and melting operations utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.5 Particulate Control

In order to comply with Conditions D.1.1 and D.1.2, baghouse E for particulate control shall be in operation and control emissions from the charge handling and melting operations at all times that the electric induction furnaces and/or charge handling systems are in operation.

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust E 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 response steps in accordance with Section C- Response to Excursions or Exceedences. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences shall be considered a deviation from this permit.

D.1.7 Baghouse Parametric Monitoring

The Permittee shall record the total pressure drop across the baghouse E used in conjunction with the electric induction furnaces and charge handling systems, at least once per day when either of the electric furnaces or either of the charge handling systems are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.5 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 Exceedences. 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 Exceedences shall be considered a deviation from this permit.

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

D.1.8 Reserved

D.1.9 Broken or Failed Bag Detection

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 Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1(a), the Permittee shall maintain records of the total amount of metal melted in the two (2) electric induction furnaces on a monthly basis.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain daily records of visible emission notations of the stack exhaust E. The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain daily records of the pressure drop during normal operation. The permittee shall include in its daily records when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Shakeout, Pouring, Casting, Cooling, Sand Handling, Shot Blasting & Grinding Operations (Baghouse D & Scrubber C)

- (c) One (1) Aisco rotary drum shakeout operation, equipped with a wet scrubber, known as wet scrubber C, installed in 1982, exhausted through Stack C, capacity: 10 tons of iron and 60 tons of sand per hour.
- (d) One (1) Disa #1 pouring/casting line, 90% of emissions captured by baghouse D, installed in 1982, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (e) One (1) Disa #1 castings cooling process, equipped with a baghouse, known as baghouse D, installed in 1982, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (f) One (1) Disa #1 sand handling process, equipped with a baghouse, known as baghouse D, installed in 1982, exhausted through Stack D, capacity: 65 tons of sand per hour.
- (g) One (1) Disa #2 pouring/casting line, 90% of emissions captured by baghouse D installed in 2000, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (h) One (1) Disa #2 castings cooling process, equipped with a baghouse, known as baghouse D, installed in 2000, exhausted through Stack D, capacity: 10 tons of iron per hour.
- (i) One (1) Disa #2 sand handling process, equipped with a baghouse, known as baghouse D, installed in 2000, exhausted through Stack D, capacity: 65 tons of sand per hour.
- (j) One (1) Didion rotary media shakeout drum, equipped with a baghouse, known as baghouse D, installed in 1999, exhausted through Stack D, capacity: 10 tons of iron and 0.2 tons of sand per hour.
- (k) Two (2) shotblast operations, equipped with a baghouse, known as baghouse D, installed in 1963 (Atlas) and 1982 (Peru), exhausted through Stack D, capacity: 5.0 tons of iron per hour, each.
- (l) One (1) mesh belt shotblast machine, equipped with a baghouse, known as baghouse D installed in 1999, exhausted through Stack D, capacity: 5.0 tons of iron castings and 1.25 tons of steel shot per hour.
- (n) One (1) belt sander, equipped with a baghouse, known as baghouse D, installed in 2002, capacity: 2.0 tons of iron per hour.
- (r) One (1) stand grinder, identified as SG#4, installed in 2006, equipped with a baghouse, known as baghouse D, exhausted through Stack D, capacity: 2.67 tons of iron per hour.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]

- (a) The total PM emission rate from baghouse D shall not exceed a total of 7.00 (seven) pounds per hour.
- (b) The total PM₁₀ emission rate from baghouse D shall not exceed a total of 10.0 (ten) pounds per hour.

- (c) The following emission units shall be limited to 6,000 hours of operation per twelve (12) consecutive month period with compliance determined at the end of each month. Baghouse D is used in conjunction with:
- (1) Disa #1 pouring/casting line
 - (2) Disa #1 casting cooling process
 - (3) Disa #1 sand handling process
 - (4) Disa #2 pouring/casting line
 - (5) Disa #2 casting cooling process
 - (6) Disa #2 sand handling process
 - (7) Didion rotary media shakeout drum
 - (8) Atlas and Peru shotblast operations
 - (9) Mesh belt shotblast machine
 - (10) One (1) belt sander
 - (11) One (1) stand grinder, identified as SG#4
- (d) The PM emission rate from scrubber C used in conjunction with the Aisco rotary drum shakeout operation shall not exceed 0.608 pounds per ton of metal.
- (e) The PM₁₀ emission rate from scrubber C used in conjunction with the Aisco rotary drum shakeout operation shall not exceed a total of 0.608 pounds per ton of metal.
- (f) Compliance with the above limits renders the requirements of 326 IAC 2-2 not applicable.
- (g) Compliance with the limits in (b) and (e) also satisfies the requirements of 326 IAC 2-8-4 for the entire source.

D.2.2 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the scrubber C used in conjunction with the Aisco rotary drum shakeout operation shall not exceed 47.8 pounds per hour when operating at a total process weight rate of 70.0 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the baghouse D shall not exceed 58.6 pounds per hour when operating at a total process weight rate of 201.2 tons per hour.
- (c) The pounds per hour limitations were calculated with the following equation:

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

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

D.2.3 VOC Limitation [326 IAC 8-1-6]

- (a) The combined metal throughput to the Disa #1 line and the Disa #2 line shall not exceed 37,300 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month.
- (b) The total VOC emissions from the Disa #1 and the Disa #2 pouring, cooling and shakeout operations shall not exceed 1.34 pounds per ton of metal.
- (c) Compliance with the above limits renders the requirements of 326 IAC 8-1-6 not applicable to either of the Disa #1 and the Disa #2 pouring, cooling and shakeout operations.

D.2.4 HAP Limitations [326 IAC 2-8-4]

The amount of organic HAPs from baghouse D (associated with the Disa #1 and Disa #2 pouring/casting lines as well as the Didion shakeout) and the fugitive HAP emissions from the Disa #1 and Disa #2 pouring/casting lines shall not exceed a total of 2.28 pounds per hour. Compliance with this limit satisfies the requirements of 326 IAC 2-8-4 for a single and the combination of HAPs.

D.2.5 Carbon Monoxide (CO) [326 IAC 2-2] [326 IAC 2-8]

Pursuant to 326 IAC 2-8-4, the following shall apply:

- (a) CO emissions from the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation shall not exceed 4.88 lbs of CO per ton of metal throughput.
- (b) The combined metal throughput to the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation shall not exceed 37,300 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits combined with the potential CO emissions from all other emission units at this source will limit the source-wide total potential to emit of CO to less than 100 tons per 12 consecutive month period and will render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

D.2.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

- (a) To demonstrate compliance with Conditions D.2.1 and D.2.2, a compliance stack test of PM and PM₁₀ for baghouse D, which controls the Disa #1 and #2 pouring/casting, Disa #1 and #2 casting cooling, Disa #1 and #2 sand handling, Didion rotary media drum shakeout, and the mesh belt shotblast, two (2) shotblaster operations, the one (1) belt sander, and the one (1) stand grinder, identified as SG#4, shall be performed by May 5, 2009 utilizing methods approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀. This test shall be repeated no less than once every five (5) years from the date of this valid compliance demonstration.
- (b) Within five (5) years of May 8, 2007, the last valid stack test of CO, in order to demonstrate the compliance with Conditions D.2.5, a compliance stack test of CO for baghouse D, shall be performed by utilizing methods approved by the Commissioner.

This test shall be repeated no less than once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.8 Particulate Control

- (a) In order to comply with Conditions D.2.1 and D.2.2, scrubber C for particulate control shall be in operation and control emissions from the Aisco rotary drum shakeout operation at all times that this process is in operation.
- (b) In order to comply with Conditions D.2.1 and D.2.2, baghouse D for particulate control shall be in operation and control emissions from the emission units listed in Condition D.2.1(c) at all times that any of these processes are in operation.

D.2.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts C and D 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 response steps in accordance with Section C- Response to Excursions or Exceedences. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences shall be considered a deviation from this permit.

D.2.10 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the scrubber controlling the Aisco rotary drum shakeout operation at least once per day when this process is in operation. When for any one reading, the pressure drop across the scrubber C is below a minimum of 1.5 inches of water, or a pressure drop minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedences. On any day the pressure drop readings are not available, the permittee shall record fan amperage. On days that fan amperage is the parameter being recorded, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedences if the amperage is less than 105 amps or a minimum amperage established by the latest stack test. A pressure reading or amperage that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences, shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across the baghouse D used in conjunction with the emission units listed in Condition D.2.1(c) at least once per day when any of these facilities is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.5 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 Exceedences. A

pressure reading that is outside the above mentioned range is not a deviation from this Response to Excursions or Exceedences, shall be considered a deviation from this permit.

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

D.2.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, then a failed unit and the associated process shall be shut down immediately until the failed units 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.

D.2.12 Reserved

D.2.13 Scrubber Failure

In the event that a scrubber failure has been observed:

If failure is indicated, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.14 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1(c), the Permittee shall maintain records of the total hours that any emission unit controlled by baghouse D is in operation on a monthly basis.
- (b) To document compliance with Condition D.2.3(a), the Permittee shall maintain records of the total amount of metal throughput to the Disa #1 pouring line and the Disa #2 pouring line on a monthly basis.
- (c) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the stack exhausts C and D once per day. The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day)

- (d) To document compliance with Condition D.2.10, the Permittee shall maintain records of pressure drop and the fan amperage reading during normal operation. The permittee shall include in its daily records when a pressure drop reading and the fan amperage reading is not taken and the reason for the lack of a pressure drop reading and the fan amperage reading (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.
- (f) To document compliance with Condition D.2.5(b), the Permittee shall maintain records of the total combined metal throughput to the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation on a monthly basis.

D.2.15 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1(c), D.2.3(a) and D.2.5(b) 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Grinding & Shotblasting Operations

- (m) Three (3) stand grinders, equipped with a baghouse, known as baghouse A, installed in 1993, 1993 and 1994, exhausted through Stack A, capacity: 2.67 tons of iron per hour, each.
- (q) One (1) continuous blast steel shotblaster, known as continuous blast, equipped with a baghouse, known as baghouse A, installed in 2004, exhausted through Stack A, capacity: 10.0 tons of iron per hour.

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 Permit No Defense

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.3.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.3.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.4 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]

- (a) The PM emission rate from baghouse A associated with the three (3) stand grinders and the continuous blast steel shotblaster shall not exceed a total of 3.00 pounds per hour.
- (b) The PM₁₀ emission rate from baghouse A associated with the three (3) stand grinders and the continuous blast steel shotblaster shall not exceed a total of 3.00 pounds per hour.
- (c) Compliance with the above limits renders the requirements of 326 IAC 2-2 not applicable.
- (d) Compliance with the limit in (b) also satisfies the requirements of 326 IAC 2-8-4 for the entire source.

D.3.5 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the baghouse A associated with the three (3) stand grinders and the continuous blast steel shotblaster shall not exceed 28.4 pounds per hour when operating at a total process weight rate of 18.0 tons per hour.

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

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

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

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

D.3.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Within 180 days of the installation of the proposed baghouse A and the continuous blast steel shotblaster in order to demonstrate compliance with Conditions D.3.4(d) and (e) and Condition D.3.5, the Permittee shall perform PM and PM₁₀ testing of baghouse A associated with the three (3) stand grinders and the continuous blast steel shotblaster utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.8 Particulate Control

In order to comply with Conditions D.3.4 and D.3.5, baghouse A for particulate control shall be in operation and control emissions from the three (3) stand grinders and the continuous blast steel shotblaster at all times that these facilities are in operation.

D.3.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust A 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 response steps in accordance with Section C- Response to Excursions or Exceedences. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences shall be considered a deviation from this permit.

D.3.10 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse A used in conjunction with the three (3) stand grinders and the continuous blast steel shotblaster, at least once per day when any of the three (3) stand grinders and/or the continuous blast steel shotblaster is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 7.0 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 Exceedences. 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 Exceedences, shall be considered a deviation from this permit.

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

D.3.11 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, then a failed units and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (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 Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.9, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust A once per day. The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.3.10, the Permittee shall maintain a daily record of pressure drop during normal operation. The permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Core Making Operations

- (o) One (1) Isocure (phenolic urethane cold box) core-system, consisting of two (2) Isocure core machines, one (1) Isocure sand mixer, one (1) sand heater, one (1) sand storage bin (1,000 pounds of sand capacity), a cold sand silo (28 tons capacity) equipped with a filter for PM control, and a pneumatic sand conveying system, installed in 1985, exhausted through Stacks S1, S2 and S4, capacity: 0.75 tons of cores per hour, total.
- (p) One (1) shell (phenolic hot box) core system, consisting of seven (7) shell core machines, four (4) sand conveyors, and two (2) sand silos; four (4) shell core machines installed in 1960 and two (2) shell core machines installed in 1983, and one (1) shell core machine installed in 2007, capacity: 28 tons of sand for each silo and 1.0 ton of cores per hour, total.

(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 2-8-4(1)]

D.4.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Any change or modification which would increase the potential to emit VOC to twenty-five (25) tons per year or more from the two (2) Isocure core machines, installed in 1985, or the two (2) shell core machines, installed in 1983, shall require prior approval from IDEM, OAQ.

D.4.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4]

The amount of TEA usage from amine gas catalysts in the isocure-core system shall not exceed 17,520 pounds per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit satisfies the requirements of 326 IAC 2-8-4.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.3 Record Keeping Requirements

To document compliance with Conditions D.4.1 and D.4.2, the Permittee shall maintain records of the amount of all resins and catalysts as well as the VOC and HAPs content of all resins and catalysts used in the core making operations.

D.4.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (g) Grinding and machining operations (326 IAC 6-3-2).
- (k) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6 (326 IAC 8-3-3) (326 IAC 8-3-6).

(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 2-8-4(1)]

D.5.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the grinding and machining operations shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements; and
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant 326 IAC 8-3-5(a) (Organic Solvent Degreasing Operations), for each of the cold cleaner degreasing units, the owner or operator shall ensure that the following control equipment requirements are met:

- (a) The permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

- (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination Requirements

There are no compliance determination conditions required for these specific facilities.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no compliance monitoring conditions required for these specific facilities.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002

**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**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002

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**

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facilities: Two (2) electric induction furnaces and two (2) charge handling systems
Parameter: Metal throughput
Limit: Total of 37,300 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to less than one hundred (100) tons per year of CO, PM and PM₁₀ for entire source and equivalent to less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year for the combination of HAPs.

YEAR: _____

Month	Total Metal Throughput (tons)	Total Metal Throughput (tons)	Total Metal Throughput (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
 Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
 Mailing Address: P.O. Box 688, Marion, Indiana 46952
 FESOP No.: F 053-12834-00002
 Facilities: Disa #1 and the Disa #2 pouring, cooling and shakeout operations
 Parameter: Metal throughput
 Limit: Total of 37,300 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to total pouring, cooling and shakeout VOC emissions of less than twenty-five (25) tons per year for each line.

YEAR: _____

Month	Total Metal Throughput (tons)		Total Metal Throughput (tons)		Total Metal Throughput (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Disa #1	Disa #2	Disa #1	Disa #2	Disa #1	Disa #2

No deviation occurred in this quarter.
 12345678901234567890

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
 Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
 Mailing Address: P.O. Box 688, Marion, Indiana 46952
 FESOP No.: F 053-12834-00002
 Facilities: Disa #1 pouring/casting line, casting cooling process, sand handling process, Disa #2 pouring/casting line, casting cooling process, sand handling process, Didion rotary media shakeout drum, Atlas and Peru shotblast operations, Mesh belt shotblast machine, belt sander and the stand grinder as SG#4.
 Parameter: Hours of Operation
 Limit: 6,000 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

Emission Unit _____ YEAR: _____

Month	Hours of Operation	Hours of Operation	Hours of Operation
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facilities: Disa #1 and the Disa #2 pouring/casting, cooling and shakeout operations
Parameter: Metal throughput
Limit: Total of 37,300 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to total pouring/casting, cooling and shakeout CO emissions of less than hundred (100) tons per year.

YEAR: _____

Month	Total Metal Throughput (tons)	Total Metal Throughput (tons)	Total Metal Throughput (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facility: Isocure-Core System
Parameter: Amount of TEA Usage
Limit: 17,520 pounds per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Amount of TEA (pounds)	Amount of TEA (pounds)	Amount of TEA (pounds)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do 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:	

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a New Source Construction and a Federally Enforceable Operating Permit (FESOP)

Source Background and Description

Source Name:	Atlas Foundry
Source Location	P.O. Box 688, Marion, Indiana, 46952
County:	Grant County
SIC Code:	3321
FESOP No.:	F053-12834-00002
Significant Permit Revision No.:	053-25079-00002
Permit Reviewer:	Swarna Prabha

On January 02, 2008, the Office of Air Quality (OAQ) had a notice published in Marion Chronicle Tribune, Marion, Indiana, stating that Atlas Foundry had applied for a Significant Permit Revision (SPR) to their Federally Enforceable Operating Permit (FESOP) to continue to operate stationary gray and ductile iron foundry, with potential emissions calculated from alternate CO emission factors provided by the manufacturer, located at Factory Avenue & Henderson Avenue, Marion, Indiana, 46952. The notice also stated that the OAQ proposed to issue a FESOP SPR for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes.

On February 3, February 13, and March 18, 2008, Paul Dubenetzky, an environmental consultant, on behalf of Atlas Foundry submitted comments to IDEM, OAQ on the draft FESOP SPR. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

The source requests that the facility descriptions in Sections A.2(p) and D.4(q) be revised. There are only seven (7) shell core machines. One shell core machine that was constructed in 1960, was removed in 1995, two shell core machines that were constructed in 1960, were removed in 2007, and one shell core machine was added in 2007. Also, there are four sand conveyers.

Response to Comment 1:

As requested by the Permittee, the facility descriptions in Sections A.2(p) and D.4(q) of the permit have been revised as follows:

- (p) One (1) shell (phenolic hot box) core system, consisting of ~~nine~~ **seven (9 7)** shell core machines, ~~two (2)~~ **four (4)** sand conveyors, two (2) sand silos; ~~seven (7)~~ **four (4)** shell core machines installed in 1960, ~~and~~ two (2) shell core machines installed in 1983, ~~and~~ **one (1) shell core machine installed in 2007**, capacity: 28 tons of sand for each silo and 1.0 ton of cores per hour, total.

Comment 2:

The emission facilities Isocure sand mixer, and shell sand handling are listed under both A.2(o) and A.2(p) respectively. Why are these facilities also listed under Section A.3(i)?

Response to Comment 2:

As requested by the permittee, the facility description in Section A.3(i) has been deleted from the permit, because the facilities are already listed in A.2(o) and A.2(p). Remaining facilities have been renumbered as follows:

- ~~(i) One (1) Isocure sand mixer and shell sand handling (326 IAC 6-3-2).~~
- (j i) Combustion source flame safety purging on startup.
- (k j) Refractory storage not requiring air pollution control equipment.
- (lk) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6 (326 IAC 8-3-3) (326 IAC 8-3-6).
- (ml) Forced and induced draft cooling tower system not regulated under a NESHAP.
- (nm) Heat exchanger, cleaning and repair.
- (en) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (po) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (qp) One (1) diesel fired emergency generator rated at 400 output horsepower, not to exceed five hundred (500) hours of operation per year.

Comment 3:

The source requests that Condition B.10 of the permit be revised to read as follows: "One (1) certification shall be included, using the attached Certification Form, or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal."

Response to Comment 3:

As requested by the permittee, the Section B.10 has been revised as follows:

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

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

Comment 4:

Source requests to remove the 6000 hours limitation on operation of the Baghouse D. Source would like to run the baghouse in cold weather when the emission units are shut down to keep the bags from freezing up overnight or week ends. Running the plant air through the baghouse when all the processes are shut down contributes to no PM emissions. Also, source requests to delete the requirement D.2.14(a) to maintain the number of hours that the baghouse D is operating. Condition 2.8 requires operation of the baghouse at all times the equipment is in operation, therefore records of the hours that the equipment is operating is sufficient to document compliance.

Response to Comment 4:

As requested by the permittee, the Sections D.2.1(c) and D.2.14 of the permit have been revised to remove the 6000 hours of operation limitation on Baghouse D. Also, the quarterly report form for the Baghouse D hours of operation has been removed from the permit as follows:

D.2.1 PM and PM₁₀ Limitations [326 IAC 2-2] [326 IAC 2-8-4]

...

- (c) ~~Baghouse D and~~ The following emission units shall be limited to 6,000 hours of operation per twelve (12) consecutive month period with compliance determined at the end of each month. Baghouse D is used in conjunction with:
- (1) Disa #1 pouring/casting line
 - (2) Disa #1 casting cooling process
 - (3) Disa #1 sand handling process
 - (4) Disa #2 pouring/casting line
 - (5) Disa #2 casting cooling process
 - (6) Disa #2 sand handling process
 - (7) Didion rotary media shakeout drum
 - (8) Atlas and Peru shotblast operations
 - (9) Mesh belt shotblast machine
 - (10) One (1) belt sander
 - (11) One (1) stand grinder, identified as SG#4

...

D.2.14 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1(c), the Permittee shall maintain records of ~~the number of hours that baghouse D and~~ the total hours that any emission unit controlled by baghouse D is in operation on a monthly basis.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facility: Baghouse D
Parameter: Hours of Operation
Limit: 6,000 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Hours of Operation	Hours of Operation	Hours of Operation
	This Month	Previous 11 Months	12 Month Total

- 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.

Comment 5:

The source requests that Condition D.2.10(a) be revised to add an option for a pump motor amperage reading in lieu of the flow rate reading. Please remove references to the pressure drop readings for the wet scrubber. There could be times when there are problems with the flow meter, but it can be determined by pump motor amperage reading that a reading of 4.5 amperes on the pump motor will produce more than the required flow of 180 gallons per minute. Atlas is satisfied with monitoring and recording water pump amperage as the parameter that indicates proper operation of the scrubber. Atlas also commits to taking response actions when pump amperage is below 4.5 amperes.

Response to Comment 5:

As requested by the permittee, the Condition D.2.10 has been revised. Also, the Condition D.2.14(d), Record Keeping Requirements has been revised to remove references to the scrubbing liquid (water) flow rate, and to include the pump motor amperage reading as the parameter that indicates proper operation of the scrubber as follows:

D.2.10 Parametric Monitoring

- (a) The Permittee shall record the pressure drop **across** and the scrubbing liquid (water) flow rate from the scrubber controlling the Aisco rotary drum shakeout operation at least once per day when this process is in operation. When for any one reading, the pressure drop across the scrubber C is below a minimum of 1.5 inches of water, and/or the flow rate for the scrubbing liquid is less than a minimum of 180 gallons of water per minute or a pressure drop minimum and flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedences. **On any day the pressure drop readings are not available, the permittee shall record the fan amperage. On days that fan amperage is the parameter being recorded, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedences if the amperage is less than 105 amps or a minimum amperage established by the latest stack test.**
- A pressure reading or **amperage** flow rate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences, shall be considered a deviation from this permit.

...

D.2.14 Record Keeping Requirements

- (d) To document compliance with Condition D.2.10, the Permittee shall maintain records of pressure drop and the scrubbing liquid (water) flow rate **fan amperage reading** during normal operation. The permittee shall include in its daily records when a pressure drop reading **and the fan amperage reading** is not taken and the reason for the lack of a pressure drop reading **and the fan amperage reading** (e.g., the process did not operate that day)

Comment 6:

The source requests that the Section D.3.13(a) be revised to correctly reference stack exhaust "A" not "B"

Response to Comment 6:

As requested by the permittee, Condition D 3.13(a) of the permit has been revised as follows:

D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.9, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust **B A** once per day. The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

Comment 7:

The source requests that Conditions D.5.2 and D.5.3 be revised to indicate that the degreasing operations are cold cleaner degreasing operations and are not open top vapor degreasing operations. Conditions D.5.2 and D.5.3 contains the requirements of 326 IAC 8-3-3 and 326 IAC

8-3-6, which do not apply. Source is subject to the conditions of 326 IAC 8-3-2 and 326 IAC 8-3-5.

Response to Comment 7:

As requested by the permittee, Conditions D.5.2 and D.5.3 have been replaced with requirements of 326 IAC 8-3-2 and 326 IAC 8-3-5, respectively, as follows:

~~D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]~~

~~Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations) for open top vapor degreasing operations constructed after January 1, 1980, the Permittee shall:~~

- ~~(a) equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;~~
- ~~(b) keep the cover closed at all times except when processing workloads through the degreaser;~~
- ~~(c) minimize solvent carry-out by:
 - ~~(1) Racking parts to allow complete drainage;~~
 - ~~(2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;~~
 - ~~(3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;~~
 - ~~(4) Tipping out any pools of solvent on the cleaned parts before removal;~~
 - ~~(5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;~~~~
- ~~(d) not degrease porous or absorbent materials, such as cloth, leather, wood or rope;~~
- ~~(e) not occupy more than half of the degreaser's open top area with the workload;~~
- ~~(f) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;~~
- ~~(g) never spray above the vapor level;~~
- ~~(h) repair solvent leaks immediately, or shut down the degreaser;~~
- ~~(i) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;~~
- ~~(j) not use workplace fans near the degreaser opening;~~
- ~~(k) not allow visually detectable water in the solvent exiting the water separator; and~~
- ~~(l) provide a permanent, conspicuous label summarizing the operating requirements.~~

~~D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-6]~~

~~Pursuant to 326 IAC 8-3-6 (Open Top Vapor Degreaser Operation and Control Requirements), for open top vapor degreasing operations with an air to solvent interface of ten and eight tenths (10.8) square feet or greater and constructed after July 1, 1990,~~

- ~~(a) The Permittee shall ensure that the following control equipment requirements are met:
 - ~~(1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;~~~~

- ~~(2) — Equip the degreaser with the following switches:
 - ~~(A) — A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.~~
 - ~~(B) — A spray safety switch shuts off spray pump if the vapor level drops more than four (4) inches.~~~~
- ~~(3) — Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).~~
- ~~(4) — Equip the degreaser with one (1) of the following control devices:
 - ~~(A) — A freeboard ratio of seventy-five hundredths (0.75) or greater and a powdered cover if the degreaser opening is greater than ten and eight-tenths (10.8) square feet; or~~
 - ~~(B) — A refrigerated chiller; or~~
 - ~~(C) — An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser; or~~
 - ~~(D) — A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifty (50) cubic feet per minute per square foot of air to vapor interface area and an average of less than twenty-five parts per million of solvent is exhausted over one (1) complete adsorption cycle; or~~
 - ~~(E) — Other systems of demonstrated equivalent or better control as those outlined in (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.~~~~
- ~~(b) — The Permittee shall ensure that the following operating requirements are met:
 - ~~(1) — Keep the cover closed at all times except when processing workloads through the degreaser;~~
 - ~~(2) — Minimize solvent carryout emissions by:
 - ~~(A) — racking articles to allow complete drainage;~~
 - ~~(B) — moving articles in and out of the degreaser at less than eleven feet per minute;~~
 - ~~(C) — degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;~~
 - ~~(D) — tipping out any pools of solvent on the cleaned articles before removal; and~~
 - ~~(E) — allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry;~~~~
 - ~~(3) — Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood or rope;~~
 - ~~(4) — Prohibit occupation of more than one half (1/2) of the degreaser's open top area with the workload;~~
 - ~~(5) — Prohibit the loading of the degreaser to the point where the vapor level would drop more than four (4) inches when the workload is removed;~~
 - ~~(6) — Prohibit solvent spraying above the vapor level;~~
 - ~~(7) — Repair solvent leaks immediately or shut down the degreaser if leaks cannot be~~~~

~~repaired immediately;~~

- ~~(8) Store waste solvent only in covered containers and prohibit the disposal transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent (by weight) could evaporate;~~
- ~~(9) Prohibit the exhaust ventilation rate from exceeding sixty five cubic feet per minute per square foot of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration (OSHA) requirements;~~
- ~~(10) Prohibit the use of workplace fans near the degreaser opening;~~
- ~~(11) Prohibit visually detectable water in the solvent exiting the water separator.~~

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;**
- (b) Equip the cleaner with a facility for draining cleaned parts;**
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;**
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;**
- (e) Provide a permanent, conspicuous label summarizing the operation requirements; and**
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.**

D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant 326 IAC 8-3-5(a) (Organic Solvent Degreasing Operations), for each of the cold cleaner degreasing units, the owner or operator shall ensure that the following control equipment requirements are met:

- met:**
- (a) The permittee shall ensure that the following control equipment requirements are met:**
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:**
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));**
 - (B) The solvent is agitated; or**
 - (C) The solvent is heated.**
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.**

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38^oC) (one hundred degrees Fahrenheit (100^oF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^oC) (one hundred twenty degrees Fahrenheit (120^oF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Comment 8:

Source requests that Condition D.1.9 regarding failed bag detection, the induction furnaces are batch operations. Therefore Condition D.1.9 (a) can be removed.

Response to Comment 8:

As requested by the permittee, the condition D1.9(a) has been deleted.

D.1.9 Broken or Failed Bag Detection

-
- (a) ~~For a single compartment baghouse controlling emissions from a process operated continuously, then a failed units and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B—Emergency Provisions).~~
- (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).

Comment 9:

The current permit limits metal throughput for each Disa Line to 37,300 tons per year in order to limit VOC emissions to less than 25 tons per year. Atlas had originally requested that the total foundry throughput be limited to less than 40,000 tons per year. During the permit review

process, Atlas requests that the CO and VOC throughputs limits be established at 37,300 tons per year for two purposes. The first was to provide some margin between the plant-wide potential to emit CO and the 100 ton per year threshold so that minor increases in CO emissions elsewhere in the plant could be more easily accommodated. The second reason was to simplify the record keeping requirements for the Disa Lines. Separate records of metal poured on each line are not required if both lines are limited to a total of 37,300 tons per year throughput limit for both line. Please revise Condition D.2.3(a) consistent with Condition D.2.5 (b) to limit total metal throughput to 37,300 tons per year. Please revise the associated FESOP quarterly report form on page 45 accordingly.

Response to Comment 9:

As requested by the permittee, Condition D.2.3(a) and EFSOP quarterly report form has been revised to include combined throughput limit of 37,000 tons per year to the Disa #1 line and the Disa #2 line.

...
D.2.3 VOC Limitation [326 IAC 8-1-6]

(a) The ~~amount of~~ **combined** metal throughput to the Disa #1 line and the Disa #2 line shall not exceed 37,300 tons per twelve (12) consecutive month period, ~~each total~~, with compliance determined at the end of each month.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
 Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
 Mailing Address: P.O. Box 688, Marion, Indiana 46952
 FESOP No.: F 053-12834-00002
 Facilities: Disa #1 and the Disa #2 pouring, cooling and shakeout operations
 Parameter: ~~Amount of m~~ Metal throughput
 Limit: **Total** of 37,300 tons per twelve (12) consecutive month period ~~for each Disa line~~ with compliance determined at the end of each month, equivalent to total pouring, cooling and shakeout VOC emissions of less than twenty-five (25) tons per year for each line.

...
 YEAR: _____

Month	Total Metal Throughput (tons)		Total Metal Throughput (tons)		Total Metal Throughput (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Disa #1	Disa #2	Disa #1	Disa #2	Disa #1	Disa #2

...

Additional Changes:

The facility description for the One (1) stand grinder, identified as SG#4 has been added to the Quarterly Report form, since it was inadvertently not included in FESOP 053-12834-00002.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facilities: Disa #1 pouring/casting line, casting cooling process, sand handling process, Disa #2 pouring/casting line, casting cooling process, sand handling process, Didion rotary media shakeout drum, Atlas and Peru shotblast operations, Mesh belt shotblast machine, ~~and the belt sander~~ **and the stand grinder as SG#4**

IDEM Contact

Question regarding this permit can be directed to Ms. Swarna Prabha the Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 6153 IGCN 1003, Indianapolis, In 46204-2251 or by telephone at 317-234-5376 or toll free at 1-800-452-6027 extension 4-5376.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federal Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	Atlas Foundry Company, Inc.
Source Location:	Factory and Henderson Avenues, Marion, IN 46952
County:	Grant
SIC Code:	3321
Operation Permit No.:	F053-12834-00002
Operation Permit Issuance Date:	July 6, 2004
Significant Permit Revision No.:	053-25079-00002
Permit Reviewer:	Swarna Prabha

The OAQ has reviewed a significant permit revision (SPR) permit application from Atlas Foundry Company, Inc., in response to the August 11, 2006 Indiana Department of Environmental Management (IDEM) document, "Notice Of Self-Disclosure for CO Emissions from PCS Operations within the Foundry Sector".

Existing Approvals

The source was issued FESOP No. 053-12834-00002, on July 6, 2004. The source has since received the following approval:

First Administrative Amendment No. 053-22350-00002, issued on February 1, 2006.

County Attainment Status

The source is located in Grant County.

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

- (a) Grant County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Grant County has been emissions were reviewed pursuant to the requirements for Prevention of Significant

Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Grant County has been classified as attainment in Indiana for pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) 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.
- (e) Fugitive Emissions
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	98.7
PM10	80.9
SO ₂	0.745
VOC	53.3
CO	2.33
NO _x	5.34

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no 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).

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

HAPs	Potential To Emit (tons/year)
TOTAL	16.9

- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based upon FESOP AA No. 059-22350-2000, issued on February 1, 2006.

Description of Revision

The Office of Air Quality (OAQ) has reviewed a Significant Permit Revision application, submitted by Atlas foundry on August 31, 2007, with supplemental information received on September 21, 2007. In response to the August 11, 2006 Indiana Department of Environmental Management (IDEM) document, "Notice of Self-Disclosure for CO Emissions from PCS Operations within the

Foundry Sector", the applicant requested a CO emission limit and production limit to render the 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable. This revision consists of limiting the foundry's metal charge throughput to 37,300 tons per year from 52,000 tons/year and using a source specific CO emission factor for pouring/castings, cooling, and shakeout (PCS) operations of 4.88 lbs per ton of metal charge.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Stack Summary

There are no new stacks associated with this revision.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – FESOP Revision

Pursuant to 326 IAC 2-7-1(29), 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 2-8.11.1. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	PTE before the revision (tons/year)	PTE after revision (tons/year)
PM	-	
PM10	-	
SO ₂	-	
VOC	-	
CO	*128.8	**91.01
NO _x	-	
HAPs	-	

*Reflects limited PTE based on the existing total metal throughput of 52,800 tons per year and emission factor of 4.88 lbs/tons per stack test results.

** Reflects limited PTE based on the new proposed total metal throughput of 37,300 tons per year and emission factor of 4.88 lbs/tons per stack test results.

Pursuant to 326 IAC 2-8-11.1 (f)(1)(H), and 326 IAC 2-8-11.1(g)(3) the FESOP is being modified through a Significant Permit Revision, since this modification has the potential to emit greater than or equal to one hundred (100) tons per year of carbon monoxide (CO) and a case by case limit has to be specified. There are no new emission units being constructed.

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 FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Pollutant	PTE of the entire source after revision (tons/year)
PM	81.5
PM10	71.0
SO ₂	0.59
VOC	47.6
CO	93.34
NO _x	5.27
HAPs	14.6

- (a) This revision to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) After this revision, this source is still a minor source under 326 IAC 2-2 (PSD) and 326 IAC 2-7.

Federal Rule Applicability Determination

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included for this proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

State Rule Applicability Determination

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

326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

Atlas Foundry Company, Inc. was constructed prior to the PSD applicability date of August 7, 1977. The source was considered a major PSD source as of the August 7, 1977 rule applicability date. This source, which is one of the 28 listed source categories, was a major PSD source for PM, PM₁₀, SO₂, and CO because the potential to emit each of these criteria pollutants exceeded one hundred (100) tons per year. Atlas Foundry Company, Inc. was designated a major PSD source for PM in FESOP No. 053-5716-00002 that did not undergo PSD review. This source became a minor PSD source with the issuance of FESOP Renewal No. 053-12834-00002, since all criteria pollutants, including PM, were limited to less than one hundred (100) tons per year.

As a result of this revision, this existing source will continue to be a minor PSD stationary source, because the emissions from the entire source will continue to be limited to less than the PSD major source threshold levels (see Permit Level Determination - PSD and Emission Offset section above). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply to this source.

326 IAC 2-8

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following limits:

- (a) CO emissions from the pouring/castings, cooling, and shakeout operation shall not exceed 4.88 lbs of CO per ton of metal throughput.
- (b) The combined metal throughput to the pouring/castings, cooling, and shakeout operation shall not exceed 37,300 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits combined with the potential CO emissions from all other emission units at this source will limit the source-wide total potential to emit of CO to less than 100 tons per 12 consecutive month period and will render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

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

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

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter Counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 9 (Carbon Monoxide Emission Limits)

Pursuant to 326 IAC 9-1-2(a)(2), this source is not subject to this rule because each of the induction furnaces has a maximum throughput of 4.4 tons per hour which is less than ten (10) tons per hour. Therefore, 326 IAC 2-9-1-1 does not apply.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 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 2-8-4. 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 following compliance determination and record keeping and reporting requirements are applicable to this source as a result of this modification.

Compliance Determination Requirements

- (a) The compliance determination requirements for Disa #1 and Disa #2 pouring/castings, cooling, and shakeout (PCS) operations are as follows:
- (1) The Permittee shall perform CO testing for baghouse D. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration to demonstrate compliance with the emission limit of 4.88 pounds of CO per ton of metal throughput.

Recordkeeping and Reporting Requirements

The Permittee shall maintain monthly record of the total combined metal throughput to the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation and submit quarterly summary.

Proposed Changes

The changes listed below have been made to FESOP Permit No. 053-12834-00002. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

- (a) Sections D.1 and D.2 and the reporting forms of the permit are revised to include a CO emission limit for the pouring/castings, cooling, and shakeout (PCS) operations of 4.88 lbs per ton of metal charge and to revise the metal charge throughput limit to 37,300 tons per twelve (12) consecutive month period.

IDEM, OAQ has decided to make the following additional revisions to the permit:

- (b) IDEM has begun implementing a new procedure and will no longer list the name or title of the Authorized Individual (A.I.) in the permit document. Section A.1 is updated accordingly.
- (c) All occurrences of IDEM mailing addresses are revised throughout the permit to include a mail code (MC) as follows:

Asbestos Section:	MC 61-52 IGCN 1003
Compliance Branch:	MC 61-53 IGCN 1003
Permits Branch:	MC 61-53 IGCN 1003
Technical Support and Modeling Section:	MC 61-50 IGCN 1003

- (d) All occurrences of the Compliance Data Branch telephone and facsimile numbers are revised throughout the permit to 317-233-~~5674~~ **0178** and 317-233-~~5967~~ **6865**, respectively.
- (e) All occurrences of "the authorized individual" are revised to "an authorized individual" throughout the permit.
- (f) In Nonrule Policy Document No. AIR 007 NPD, revised September 6, 2002, a table is a given as an example for how sources can submit annual compliance certifications. Condition B.11 Annual Compliance Certification is revised to remove "in letter form" so that it does not contradict the guidance.
- (g) IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Condition B.12 Preventive Maintenance and has amended Condition B.13 – Emergency Provisions. In

sections B.12 and B.13 paragraphs have been renumbered.

- (h) For clarification purposes, Condition B.18 - Operational Flexibility has been revised.
- (i) The original Condition B.19 has been renamed from "Permit Revision Requirement" to "Source Modification Requirement", which is a more appropriate condition title.
- (j) The phone number for the OAQ, Billing, Licensing, and Training Section (BLT) in Condition B.22 is revised to 317-233-~~4230~~ 4320.
- (k) Condition C.9(g) is revised to remove the statement that the requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable, since all conditions and requirements in a FESOP are federally enforceable.
- (l) In order to correct a typographical error, Condition C.17(b) is revised from the terminology "one-hundred and twenty" to "one hundred twenty".
- (m) Instrument Gauges: IDEM has determined that the accuracy of the instruments is not nearly important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the conditions.
- (n) IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. Section C.16 has been revised accordingly. The Section D conditions, D.1.6, D.1.7, D.1.9, D.2.8, D.2.9, and D.2.11 that refer to this condition have been revised.
- (o) IDEM has determined that it is the Permittee's responsibility to include control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed. Sections D.1.8, D.2.10, D.2.12 and D.3.11 consisting of control device inspections have been removed.
- (p) Clarification of applicable requirements and permit language and correction of typographical errors as necessary.
- (q) Paragraph (a) of the broken or Failed Baghouse condition has been deleted, for multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. Therefore, a requirement has been added to the Section D – Particulate Control condition requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition. Sections D.1.9, and D.3.11 paragraph (a) has been deleted and replaced with a condition specific to single compartment baghouses which control emissions from continuously operating processes.
- (r) IDEM has determined that once per day visible emission notations and once per day monitoring of the control device is generally sufficient to ensure proper operation of the emission units and control devices. Therefore, the monitoring frequency has been

changed from once per shift to once per day. Sections D.1.6, D.2.8 and D. 3.9 for Visible Emission Notations and Sections D.1.6, D.2.8 and D.3.9 have been changed to once per shift to once per shift day and Sections D.1.7, D.2.9 and D.3.10 Parametric Monitoring of the control device has been changed to once per shift day.

- (s) IDEM has determined that record keeping requirements for visible emissions notations, and other parametric monitoring, the permittee needs to make a record of some sort every day whether the unit operated that day or not. The Sections D1.10 (b) (c), D.2.14(c) (d), Section D.313(a) (b) have been changed to maintain a daily record of visible emission notations of the process/control device and the record keeping condition for other parametric monitoring, such as pressure drop monitoring.
- (t) Record Keeping Requirements -Section D1.10 paragraphs (d) (e) and Section D.2.10, D.2.12, and Section D.14 paragraphs (f)(g) have been deleted.

The permit is revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary gray and ductile iron foundry.

~~Authorized Individual:~~ **President**
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
General Source Phone: 765-662-2525

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]

- (a) This permit, **F053-12834-00002**, 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 until the renewal permit has been issued or denied.**

...

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (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 an authorized individual of truth, accuracy, and completeness. This certification₇ 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.**

...

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted ~~in letter form~~ no later than July 1 of each year to:

...

The **submittal** notification which ~~shall be submitted~~ by the Permittee does require the certification

by ~~the~~ an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) ~~If required by specific condition(s) in Section D of this permit, the Permittee shall~~ **prepare and maintain and implement Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility: for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:**

...

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

~~(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~

~~(e)~~**(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 does not require the certification by ~~an the~~ "authorized individual" as defined by 326 IAC 2-1.1-1(1).

~~(d)~~**(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.13 Emergency Provisions [326 IAC 2-8-12]

....

~~(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 2-8-3(c)(6) 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 2-8 and any other applicable rules.

~~(g) Operations may continue during an emergency only if the following conditions are met:~~

~~(g)~~ (4) 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.

~~(2)~~ If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

~~(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and~~

~~(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.~~

~~Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.~~

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

...
B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), 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.

...
B.16 Permit Renewal [326 IAC 2-8-3(h)]

...
~~Timely Submittal of Permit Renewal [326 IAC 2-8-3]~~

- ~~(b)(1) A timely renewal application is one that is:~~

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

~~(2B) 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.~~

~~(2) If IDEM, OAQ, upon receiving a timely and complete 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 until the renewal permit has been issued or denied.~~

- (c) ~~Right to Operate After Application for Renewal [326 IAC 2-8-9]~~

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 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as **being** needed to process the application.

...
B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- ...
(c) The Permittee may implement ~~the~~ administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

- (d) ~~No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.~~

...

B.18 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at ~~the this~~ source that are described in 326 IAC 2-8-15(b) through (d), without a prior permit revision, if each of the following conditions is met:

...

- (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 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, ~~for to~~ public review.

...

- (b) **Emission Trades** [326 IAC 2-8-15(c)]
The Permittee may trade **emissions** increases and decreases ~~in emissions in~~ 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 2-8-15(c).

...

B.19 ~~Permit Revision~~ Source Modification Requirement [326 IAC 2-8-11.1]

...

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

...

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~42304320~~ (ask for OAQ, Billing, Licensing, and Training Section (BLT)), to determine the appropriate permit fee.

...

C.2 Overall Source Limit [326 IAC 2-8][**326 IAC 2-2**]

...

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(~~3~~)]

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

...

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

...

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

...

C.14 ~~Pressure Gauge and Other Instrument Specifications~~ [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) ~~Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed~~ **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 normal **maximum** reading **for the normal** range shall be no less than twenty percent (20%) of full scale ~~and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.~~

- (b) ~~Whenever a condition in this permit requires the measurement of a temperature, or flow rate, the instrument employed shall have a scale such that the expected normal reading~~

~~shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.~~

- (c) ~~The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one (1) pH point.~~
- (d) The Permittee may request **that** the IDEM, OAQ approve the use of a ~~pressure gauge or other~~ **an** instrument that does not meet the above specifications provided the Permittee can demonstrate **that** an alternative ~~pressure gauge or other~~ instrument specification will adequately ensure compliance with permit conditions requiring the measurement of ~~pressure drop or other~~ **the** parameters.

...

~~C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4]~~
Response to Excursions or Exceedences [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) ~~The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:~~
- (1) ~~Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.~~
 - (2) ~~If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (c) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~
- (b) ~~For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~
- (1) ~~Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or~~
 - (2) ~~If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~
 - (3) ~~If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~

- ~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~
- ~~(c) The Permittee is not required to take any further response steps for any of the following reasons:
 - ~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~
 - ~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.~~
 - ~~(3) An automatic measurement was taken when the process was not operating.~~
 - ~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~~~
- ~~(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.~~
- ~~(e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~
- ~~(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~
- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.**
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;**
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or**
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.****
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:**

- (1) **monitoring results;**
 - (2) **review of operation and maintenance procedures and records;**
 - (3) **inspection of the control device, associated capture system, and the process.**
- (d) **Failure to take reasonable response steps shall be considered a deviation from the permit.**
- (e) **The Permittee shall maintain the following records:**
- (1) **monitoring data;**
 - (2) **monitor performance data, if applicable; and**
 - (3) **corrective actions taken.**

C.17 **Actions Related to Noncompliance Demonstrated by a Stack Test** [326 IAC 2-8-4] [326 IAC 2-8-5]

...

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

...

C.19 **General Reporting Requirements** [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

...

- (e) 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.**

...

Section D.1 **FACILITY OPERATION CONDITIONS:**

...

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 **PM and PM₁₀ Limitations** [326 IAC 2-2] [326 IAC 2-8-4]

- (a) The total amount of **combined** metal throughput to the two (2) electric induction furnaces shall not exceed ~~52,800~~ **37,300** tons per twelve (12) consecutive month period with compliance determined at the end of each month.

...

D.1.6 **Visible Emissions Notations**

...

- (e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an~~ **If abnormal emissions is are observed, the permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedance.** Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances** shall be considered a deviation from this permit.

...

D.1.7 **Baghouse Parametric Monitoring**

The Permittee shall record the ~~total static~~ pressure drop across the baghouse E used in conjunction with the electric induction furnaces and charge handling systems, at least once per ~~shift~~ day when either of the electric furnaces or either of the charge handling systems are in operation.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan- Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**. 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 - ~~Compliance Response Plan- Preparation, Implementation, Records, and Reports~~, **Response to Excursions or Exceedences** shall be considered a deviation from this permit.

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

~~D.1.8 Baghouse Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling the electric induction furnaces and charge handling systems. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.1.9 Broken or Failed Bag Detection

(a) ~~For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan- Preparation, Implementation, Records, and Reports **Response to Excursions or Exceedences**, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~

(b)(a) For a single compartment baghouses **controlling emissions from a process operated continuously**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then a failed units and the associated process **will shall** be shut down immediately until the failed units **have 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 baghouses **controlling emissions from a batch process**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then **the feed to the process** failed units and the associated process **will shall** be shut down immediately until the failed units have 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.

...

D.1.10 Record Keeping Requirements

...

- (b) To document compliance..... **The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain **a daily records of once per day of the pressure drop during normal operation. The permittee shall include in its daily records when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**
- ~~(d) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.~~
- ~~(e) To document compliance with Condition D.1.3, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- (f d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

...

Section D.2 FACILITY OPERATION CONDITIONS:

...

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.5 Carbon Monoxide (CO) [326 IAC 2-2] [326 IAC 2-8]

Pursuant to 326 IAC 2-8-4, the following shall apply:

- (a) **CO emissions from the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation shall not exceed 4.88 lbs of CO per ton of metal throughput.**
- (b) **The combined metal throughput to the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation shall not exceed 37,300 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

Compliance with these limits combined with the potential CO emissions from all other emission units at this source will limit the source-wide total potential to emit of CO to less than 100 tons per 12 consecutive month period and will render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

...

Compliance Determination requirements

D.2.56 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

D.2.67 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

- (a) To demonstrate compliance with Conditions D.2.1 and D.2.2, a compliance stack test of PM and PM₁₀ for baghouse D, which controls the Disa #1 and #2 pouring/casting, Disa #1 and #2 casting cooling, Disa #1 and #2 sand handling, Didion rotary media drum shakeout, and the mesh belt shotblast, two (2) shotblaster operations, the one (1) belt

sander, and the one (1) stand grinder, identified as SG#4, shall be performed by May 5, 2009 utilizing methods approved by the Commissioner. PM_{10} includes filterable and condensable PM_{10} . This test shall be repeated no less than once every five (5) years from the date of this valid compliance demonstration.

- (b) **Within five (5) years of May 8, 2007, the last valid stack test of CO, in order to demonstrate the compliance with Conditions D.2.5, a compliance stack test of CO for baghouse D, shall be performed by utilizing methods approved by the Commissioner.**

This test shall be repeated no less than once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance testing.

...
D.2.78 Particulate Control

...
D.2.89 Visible Emissions Notations

- ...
(e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an~~ **If abnormal emissions is are observed, the permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedences.** Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences** shall be considered a deviation from this permit.

...
D.2.10 Parametric Monitoring

- (a) The Permittee shall record the ~~total static~~ pressure drop and the scrubbing liquid (water) flow rate from the scrubber controlling the Aisco rotary drum shakeout operation at least once per shift day when this process is in operation. When for any one reading, the pressure drop across the scrubber C is below a minimum of 1.5 inches of water and/or the flow rate for the scrubbing liquid is less than a minimum of 180 gallons of water per minute or a pressure drop minimum and flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences.** A pressure reading or flow rate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**, shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across the baghouse D used in conjunction with the emission units listed in Condition D.2.1(c) at least once per shift day when any of these facilities is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences.** 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 - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - ~~Pressure Gauge and~~ **Other Instruments Specifications**, of this permit, shall be subject to approval by IDEM, OAQ, and shall be

calibrated at least once every six (6) months

D.2.10 Baghouse Inspections

~~An inspection shall be performed each calendar quarter of all bags controlling the emission units listed in Condition D.2.1(c). Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.2.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] {326 IAC 2-7-5(1)}

~~In the event that bag failure has been observed:~~

- ~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports **Response to Excursions or Exceedences**, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~
- ~~(b)(a) For a single compartment baghouses **controlling emissions from a process operated continuously**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then a failed units and the associated process **will shall** be shut down immediately until the failed units **have 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 baghouses **controlling emissions from a batch process**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then **the feed to the process** failed units and the associated process **will shall** be shut down immediately until the failed units **have 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.

D.2.12 Scrubber Inspections

~~An inspection shall be performed each calendar quarter of the scrubber controlling the Aisco rotary drum shakeout operation. Inspections required by this condition shall not be performed in consecutive months. All defective scrubber parts shall be replaced.~~

D.2.13 Scrubber Failure

In the event that a scrubber failure has been observed:

If failure is indicated, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.14 Record Keeping Requirements

...

- (c) To document compliance with Condition D.2.89, the Permittee shall maintain **a daily** records of visible emission notations of the stack exhausts C and D ~~once per day~~. **The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**
- (d) To document compliance with Condition D.2.-(9a)10, the Permittee shall maintain **a daily** records ~~once per day~~ of the pressure drop and the scrubbing liquid (water) flow rate during normal operation. **The permittee shall include in its daily records when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**
- ~~(f) To document compliance with Conditions D.2.10 and D.2.12, the Permittee shall maintain records of the results of the inspections required under Conditions D.2.10 and D.2.12.~~
- ~~(g) To document compliance with Condition D.2.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(h)~~**(e)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
- (f) To document compliance with Condition D.2.5(a), the Permittee shall maintain records of the total combined metal throughput to the Disa #1 and Disa #2 pouring/castings, cooling, and shakeout operation, with compliance determined at the end of each month.**

...

D.3.9 Visible Emissions Notations

...

- (e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an~~ **If abnormal emissions is are observed, the permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedences.** Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences** shall be considered a deviation from this permit.

...

D.3.10 Parametric Monitoring

The Permittee shall record the ~~total static~~ pressure drop across the baghouse A used in conjunction with the three (3) stand grinders and the continuous blast steel shotblaster, at least once

per shift day when any of the three (3) stand grinders and/or the continuous blast steel shotblaster is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- ~~Compliance Response Plan- Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**. 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 - ~~Compliance Response Plan- Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedences**, shall be considered a deviation from this permit.

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

D.3.11 Broken or Failed Bag Detection

- ~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C- Compliance Response Plan- Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~
- (b)(a) For a single compartment baghouses **controlling emissions from a process operated continuously**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then a failed units and the associated process will **shall** be shut down immediately until the failed units ~~have~~ **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 baghouses **controlling emissions from a batch process**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then **the feed to the process** failed units and the ~~associated process will~~ **shall** be shut down immediately until the failed units ~~have~~ **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.

D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.9, the Permittee shall maintain **a daily** records of visible emission notations of the stack exhaust B ~~once per day~~. **The permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**

- (b) To document compliance with Condition D.3.10, the Permittee shall maintain **a daily** records ~~of once per day~~ of the pressure drop during normal operation. **The permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**

...

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
 Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
 Mailing Address: P.O. Box 688, Marion, Indiana 46952
 FESOP No.: F 053-12834-00002
 Facilities: Two (2) electric induction furnaces and two (2) charge handling systems
 Parameter: ~~Amount of metal~~ **Metal** throughput
 Limit: Total of ~~52,800~~ **37,300** tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to less than one hundred (100) tons per year of **CO**, PM and PM₁₀ for entire source and equivalent to less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year for the combination of HAPs.

YEAR: _____

Month	Total Metal Throughput (tons)	Total Metal Throughput (tons)	Total Metal Throughput (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Atlas Foundry Company, Inc.
Source Address: Factory and Henderson Avenues, Marion, Indiana 46952
Mailing Address: P.O. Box 688, Marion, Indiana 46952
FESOP No.: F 053-12834-00002
Facilities: Disa #1 and the Disa #2 pouring/castings, cooling and shakeout operations
Parameter: Metal throughput
Limit: Total of 37,300 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to total pouring/casting, cooling and shakeout CO emissions of less than one hundred (100) tons per year.

YEAR: _____

Month	Total Metal Throughput (tons)		Total Metal Throughput (tons)		Total Metal Throughput (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Disa #1	Disa #2	Disa #1	Disa #2	Disa #1	Disa #2

- 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.

Conclusion and Recommendation

The operation of this proposed revision shall be subject to the conditions of the attached FESOP Significant Permit Revision No. 053-25079-00002. The staff recommend to the Commissioner that this FESOP Significant Permit Revision be approved.

**TSD Addendum Appendix A: Emission Calculations
Grey Iron Foundry Emissions**

TSD Addendum Page 1 of 1

Company Name: Atlas Foundry Company, Inc.
Address City IN Zip: Factory and Henderson Avenues
Marion, Indiana 46952

FESOP: F 053-12834-0002

Significant Permit Revision No.: 053-25079-0002

Reviewer: S. Prabha

Limited CO Emissions

Limited Melt Rate	*Emission Factors lbs/yr	Limited Emission tons/yr
37,300	4.88	91.012

* Emission Factor used is based on Stack test results

Appendix A: Emission Calculations

Grey Iron Foundry Emissions

Company Name: Atlas Foundry Company, Inc.

Address City IN Zip: Factory and Henderson Avenues, Marion, Indiana 46952

FESOP: F 053-12834-0002

Significant Permit Revision No.: 053-25079-0002

Reviewer: S. Prabha

** Process Emissions **

Limited Thoughtput
37,300

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)		
Scrap & Charge Handling (1996/2000) 2 operations @ 4.4 TPH ea. SCC# 3-04-003-15 FIRE 6.01 AP-42 Ch. 12.10 Fifth edition 1995	8.8	PM	0.60	23.13	Baghouse E	90.00%	2.31	1.12		
		PM-10	0.36	13.88	Baghouse E	90.00%	1.39	0.67		
		SO2	0.00	0.00				0.00	0.0000	
		NOx	0.00	0.00				0.00	0.0000	
		VOC	0.00	0.00				0.00	0.0000	
		CO	0.00	0.00				0.00	0.0000	
		chromium	0.00023	0.00887	Baghouse E	90.00%	0.00089	0.0004		
		cobalt	0.00002	0.00077	Baghouse E	90.00%	0.00008	0.0000		
		nickel	0.00040	0.01542	Baghouse E	90.00%	0.00154	0.0007		
		arsenic	0.00008	0.00308	Baghouse E	90.00%	0.00031	0.0001		
		cadmium	0.00004	0.00154	Baghouse E	90.00%	0.00015	0.0001		
		selenium	0.00001	0.00039	Baghouse E	90.00%	0.00004	0.0000		
		Lead	0.00230	0.08865	Baghouse E	90.00%	0.00887	0.0043		
		Total HAPs							0.01187	0.00574

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 8.8 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (8.8^{0.67}) = 17.6 \text{ lb/hr (allowable)}$$

with potential:

$$2.31 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.528 \text{ lb/hr (will comply)}$$

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control From Stack Tests (ton/yr)	Emissions After Limits & Control (ton/yr)	
Melting - 2 Electric Induction Furnaces (1996) Source of Criteria Pollutant Factors: EPA SCC# 3-04-003-03 FIRE 6.01 AP-42 Ch. 12.10 Fifth edition 1995	8.8	PM	0.90	34.69	Baghouse E	90.00%	3.47	2.80	
		PM-10	0.86	33.15	Baghouse E	90.00%	3.31	5.60	
		SO2	0.00	0.00				0.00	0.0000
		NOx	0.00	0.00				0.00	0.0000
		VOC	0.00	0.00				0.00	0.0000
		*CO	4.88	97.60				91.01	91.0120
		chromium	0.00023	0.00887	Baghouse E	90.00%	0.00089	0.0004	
		cobalt	0.00002	0.00077	Baghouse E	90.00%	0.00008	0.0000	
		nickel	0.00040	0.01542	Baghouse E	90.00%	0.00154	0.0007	
		arsenic	0.00008	0.00308	Baghouse E	90.00%	0.00031	0.0001	
		cadmium	0.00004	0.00154	Baghouse E	90.00%	0.00015	0.0001	
		manganese	0.02250	0.86724	Baghouse E	90.00%	0.08672	0.0420	
		selenium	0.00001	0.00039	Baghouse E	90.00%	0.00004	0.0000	
		Lead	0.04250	1.63812	Baghouse E	90.00%	0.16381	0.04342	
		Total HAPs							0.25

* CO Emission Factor used is based on Stack test results

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 8.8 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (8.8^{0.67}) = 17.6 \text{ lb/hr (allowable)}$$

with potential:

$$3.47 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.792 \text{ lb/hr (will comply)}$$

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control From Stack Tests (ton/yr)	Emissions After Limits & Control (ton/yr)	
Pouring/Casting Disa #1 & 2 (1982 & 2000) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-18 (except as noted) 50% of the Pouring/Casting Emissions Are Uncontrolled for PM & PM-10 and Metallic HAPs	20.0	PM	1.40	122.64		0.000%	122.64	26.110	
		PM-10	0.33	28.91		0.000%	28.908	6.155	
		SO2	0.02	1.752				1.752	0.373
		NOx	0.01	0.876				0.876	0.187
		VOC	0.14	12.26				12.26	2.61
		CO	0.00	0.00				0.00	0.000
		chromium	0.00080	0.0701		0.000%	0.0701	0.015	
		cobalt	0.00007	0.0057		0.000%	0.0057	0.001	
		nickel	0.00141	0.1231		0.000%	0.1231	0.026	
		arsenic	0.00028	0.0241		0.000%	0.0241	0.005	
		cadmium	0.00013	0.0110		0.000%	0.0110	0.002	
		selenium	0.00002	0.0018		0.000%	0.0018	0.000	
		Lead	0.00809	0.7082		0.000%	0.7082	0.1508	
		Organic HAPs	0.28300	24.7908		0.000%	24.8	5.28	
		Total HAPs							25.7

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

For each: Disa #1 and Disa #2

$$P = 10 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (10^{0.67}) = 19.2 \text{ lb/hr (allowable)}$$

with potential:

$$61.3 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 14.0 \text{ lb/hr (will comply)}$$

Limited Thoughtput	Limited Hours
37,300 tons/year	6,000

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)		
Castings Cooling Disa #1 (1982) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-25	10.0	PM	1.40	61.32	Baghouse D	99.900%	0.061	21.000	0.042		
		PM-10	1.40	61.32	Baghouse D	99.900%	0.061	30.000	0.042		
		SO2	0.00	0.00				0.00	0.000	0.000	
		NOx	0.00	0.00				0.00	0.000	0.000	
		VOC	0.00	0.00				0.00	0.000	0.000	
		CO	---	0.00				0.00	0.000	0.000	
		Lead	---	0.00	Baghouse D	99.900%		0.00	0.0000	0.000	
		Total HAPs							0.00	0.00	0.00

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 10 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (10^{0.67}) = 19.2 \text{ lb/hr (allowable)}$$

with potential:

$$0.061 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.014 \text{ lb/hr (will comply)}$$

Limited Thoughtput	Limited Hours
37,300 tons/year	6,000

Process: CONTROLLED	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)	
Pouring/Casting Disa #1 & #2 (1982 & 2000) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-18 (except as noted) 50% of the Pouring/Casting Emissions Are Uncontrolled for PM & PM-10 and Metallic HAPs	20.0	PM	1.40	122.64	Baghouse D	99.900%	0.123	21.000	0.084	
		PM-10	0.33	28.91	Baghouse D	99.900%	0.029	30.000	0.020	
	Accounted For in Uncontrolled		SO2	0.00	0.000			0.000	0.000	0.000
			NOx	0.00	0.000			0.000	0.000	0.000
			VOC	0.00	0.000			0.000	0.000	0.000
			CO	---	0.000			0.000	0.000	0.000
			chromium	0.00080	0.070	Baghouse D	99.900%	0.00007	0.00001	0.00005
			cobalt	0.00007	0.006	Baghouse D	99.900%	0.00001	0.00000	0.00000
			nickel	0.00141	0.123	Baghouse D	99.900%	0.00012	0.00003	0.00008
			arsenic	0.00028	0.024	Baghouse D	99.900%	0.00002	0.00001	0.00002
			cadmium	0.00013	0.011	Baghouse D	99.900%	0.00001	0.00000	0.00001
			selenium	0.00002	0.002	Baghouse D	99.900%	0.00000	0.00000	0.00000
	Lead	0.00809	0.708	Baghouse D	99.900%	0.00071	0.00015	0.00049		
	Total HAPs							0.001	0.0002	0.001

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

For each: Disa #1 and Disa #2

$$P = 0.1 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (0.1^{0.67}) = 0.877 \text{ lb/hr (allowable)}$$

with potential:

$$0.0613 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.014 \text{ lb/hr (will comply)}$$

Limited Thoughtput 37,300 tons/year	Limited Hours 6,000
---	------------------------

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)		
Castings Cooling Disa #2 (2000) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-25	10.0	PM	1.40	61.32	Baghouse D	99.900%	0.061	21.000	0.042		
		PM-10	1.40	61.32	Baghouse D	99.900%	0.061	30.000	0.042		
		SO2	0.00	0.00				0.000	0.000	0.000	
		NOx	0.00	0.00				0.000	0.000	0.000	
		VOC	0.00	0.00				0.000	0.000	0.000	
		CO	---	0.00				0.000	0.000	0.000	
		Lead	---	0.00		Baghouse D	99.900%	0.000	0.000	0.000	
		Total HAPs							0.000	0.000	0.000

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 10 tons/hr

limit = $4.1 \times (10^{0.67}) = 19.2 \text{ lb/hr}$ (allowable)

with potential:

$0.1 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.014 \text{ lb/hr}$ (will comply)

Limited Thoughtput 37,300 tons/year

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)		
Aisco Rotary Drum (1982) Shakeout Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-31 AP-42 Ch. 12.10 Fifth edition 1995	10.0	PM	3.20	140.16	Scrubber C	81.00%	26.63	11.34		
		PM-10	2.24	98.11	Scrubber C	81.00%	18.64	11.34		
		SO2	0.00	0.00				0.00	0.00	
		NOx	0.00	0.00				0.00	0.00	
		VOC	0.60	26.28				26.28	11.19	
		CO	---	0.00				0.00	0.0000	
		chromium	0.00122	0.05344	Scrubber C	81.00%	0.0102	0.0043		
		cobalt	0.00010	0.00438	Scrubber C	81.00%	0.0008	0.0004		
		nickel	0.00214	0.09373	Scrubber C	81.00%	0.0178	0.0076		
		arsenic	0.00042	0.01840	Scrubber C	81.00%	0.0035	0.0015		
		cadmium	0.00019	0.00832	Scrubber C	81.00%	0.0016	0.0007		
		selenium	0.00003	0.00131	Scrubber C	81.00%	0.0002	0.0001		
		Lead	0.01232	0.53962	Scrubber C	81.00%	0.1025	0.0437		
		Total HAPs							0.137	0.058

Elected Limit

The AP-42 VOC emission of 1.2 lbs/ton has been split in half between the two in-series shakeout operations since there is a fixed amount of VOC which can be released

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

Allowable based on Sand + Metal (60+10)

P= 70 tons/hr

limit = $55 \times (70^{0.11 - 40}) = 47.8 \text{ lb/hr}$ (allowable)

with potential:

$26.6 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 6.08 \text{ lb/hr}$ (will comply)

Limited Throughput 37,300 tons/year	Limited Hours 6,000
---	------------------------

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	
Didion Rotary Media Drum (1999) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-31 AP-42 Ch. 12.10 Fifth edition 1995	10.0	PM	3.20	140.16	Baghouse D	99.900%	0.1402	21.000	
		PM-10	2.24	98.11	Baghouse D	99.900%	0.0981	30.000	
		SO2	0.00	0.00				0.0000000	0.00
		NOx	0.00	0.00				0.0000000	0.00
		VOC	0.60	26.28				26.2800000	11.19
		CO	---	0.00				0.0000000	0.000000
		chromium	0.00122	0.05344		Baghouse D	99.900%	0.0000534	0.000023
		cobalt	0.00010	0.00438		Baghouse D	99.900%	0.0000044	0.000002
		nickel	0.00214	0.09373		Baghouse D	99.900%	0.0000937	0.000040
		arsenic	0.00042	0.01840		Baghouse D	99.900%	0.0000184	0.000008
		cadmium	0.00019	0.00832		Baghouse D	99.900%	0.0000083	0.000004
		selenium	0.00003	0.00131		Baghouse D	99.900%	0.0000013	0.000001
		Lead	0.01232	0.53962		Baghouse D	99.900%	0.0005396	0.000230
		Total HAPs						0.00072	0.00031
									0.00049

The AP-42 VOC emission of 1.2 lbs/ton has been split in half between the two in-series shakeout operations since there is a fixed amount of VOC which can be released
 Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year
 Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:
 Allowable based on Sand + Metal (0.2+10)

$$P = 10.2 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (10.2^{0.67}) = 19.4 \text{ lb/hr (allowable)}$$

with potential:
 0.1 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.032 lb/hr (will comply)

Limited Throughput 37,300 tons/year	Limited Hours 6,000
---	------------------------

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	
Two (2) Shot Blasters (Atlas 1963, Peru 1982) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-31 AP-42 Ch. 12.10	10.0	PM	17.00	744.60	Baghouse D	99.900%	0.745	21.000	
		PM-10	1.70	74.46	Baghouse D	99.900%	0.074	30.000	
		SO2	0.00	0.00				0.000	0.000
		NOx	0.00	0.00				0.000	0.000
		VOC	0.00	0.00				0.000	0.000
		CO	---	0.00				0.000	0.000
		arsenic	0.00221	0.09680		Baghouse D	99.900%	0.0001	0.00004
		cadmium	0.00102	0.04468		Baghouse D	99.900%	0.0000	0.00002
		selenium	0.00017	0.00745		Baghouse D	99.900%	0.0000	0.00000
		Lead	0.00450	0.19710		Baghouse D	99.900%	0.0002	0.0001
		Total HAPs						0.0003	0.0001

Shotblaster @ 5 TPH each
 Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year
 Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 10 \text{ tons/hr each}$$

$$\text{limit} = 4.1 \times (10^{0.67}) = 19.2 \text{ lb/hr (allowable)}$$

with potential:
 0.7 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.170 lb/hr (will comply)

Limited Thoughtput 37,300 tons/year	Limited Hours 6,000
---	------------------------

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)	
Mesh Belt Shotblast (1999) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-31 AP-42 Ch. 12.10	5.0	PM	17.00	372.30	Baghouse D	99.900%	0.372	21.000	0.255	
		PM-10	1.70	37.23	Baghouse D	99.900%	0.037	30.000	0.026	
		SO2	0.00	0.00				0.000	0.000	
		NOx	0.00	0.00				0.000	0.000	
		VOC	0.00	0.00				0.000	0.000	
		CO	---	0.00				0.000	0.000	
		arsenic	0.0022	0.048	0.00048	Baghouse D	99.900%	0.000048	0.000041	0.000033
		cadmium	0.0010	0.022	0.00022	Baghouse D	99.900%	0.000022	0.000019	0.000015
		selenium	0.0002	0.00	0.00004	Baghouse D	99.900%	0.000004	0.000003	0.000003
		Lead	0.0045	0.099	0.00099	Baghouse D	99.900%	0.000099	0.000084	0.000068
		Total HAPs							0.000173	0.000147

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year
 Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 5 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (5^{0.67}) = 12.1 \text{ lb/hr (allowable)}$$

with potential:
 0.37 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.085 lb/hr (will comply)

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Baghouse A Total 13.14 13.14	
Continuous Shotblast (2004) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-31 AP-42 Ch. 12.10	10.0	PM	17.00	744.6	Baghouse A	98.239%	13.112		
		PM-10	1.70	74.5	Baghouse A	82.400%	13.105		
		SO2	0.00	0.00					0.000
		NOx	0.00	0.00					0.000
		VOC	0.00	0.00					0.000
		CO	---	0.00					0.000
		arsenic	0.00221	0.09680	0.00221	Baghouse A	98.239%		0.002
		cadmium	0.00102	0.04468	0.00102	Baghouse A	98.239%		0.0008
		selenium	0.00017	0.00745	0.00017	Baghouse A	98.239%		0.0001
		Lead	0.00450	0.19710	0.00450	Baghouse A	98.239%		0.0035
		Total HAPs							0.006

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 10 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (10^{0.67}) = 19.2 \text{ lb/hr (allowable)}$$

with potential:
 13.1 tons/yr x 2000 lb/ton / 8760 hr/yr = 2.99 lb/hr (will comply)

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)		
3 Stand Grinders (1993, 1993, 1994) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-60 AP-42 Ch. 12.10	8.0	PM	0.01	0.350	Baghouse A	98.239%	0.0062		
		PM-10	0.0045	0.158	Baghouse A	82.400%	0.0278		
		SO2	0.00	0.00				0.000	
		NOx	0.00	0.00				0.000	
		VOC	0.00	0.00				0.000	
		CO	---	0.00				0.000	
		arsenic	0.00221	0.07744		Baghouse A	98.239%	0.001	
		cadmium	0.00102	0.03574		Baghouse A	98.239%	0.001	
		selenium	0.00017	0.00596		Baghouse A	98.239%	0.0001	
		Lead	0.00450	0.15768		Baghouse A	98.239%	0.003	
		Total HAPs							0.005

Baghouse A
 Total
 13.14
 13.14

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 8 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (8^{0.67}) = 16.5 \text{ lb/hr (allowable)}$$

with potential:
 0.006 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.001 lb/hr (will comply)

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)		
1 Belt Sander (2002) Source of Criteria Pollutant Factors: FIRE 6.01 SCC# 3-04-003-60 AP-42 Ch. 12.10	2.0	PM	0.01	0.088	Baghouse D	99.900%	21.000		
		PM-10	0.0045	0.039	Baghouse D	99.900%	30.000		
		SO2	0.00	0.00			0.00%	0.0000000	
		NOx	0.00	0.00			0.00%	0.0000000	
		VOC	0.00	0.00			0.00%	0.0000000	
		CO	---	0.00			0.00%	0.0000000	
		arsenic	0.00221	0.01936		Baghouse D	99.900%	0.0000194	
		cadmium	0.00102	0.00894		Baghouse D	99.900%	0.0000089	
		selenium	0.00017	0.00149		Baghouse D	99.900%	0.0000015	
		Lead	0.00450	0.03942		Baghouse D	99.900%	0.0000394	
		Total HAPs							0.000069

Limited Hours	Emissions After Limits & Control (ton/yr)
6,000	0.00006
	0.00003
	0.000
	0.000
	0.000
	0.000
	0.000013
	0.000006
	0.000001
	0.000027
	0.000047

Baghouse D
 Total
 Total

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 2 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (2^{0.67}) = 6.52 \text{ lb/hr (allowable)}$$

with potential:
 21.00 tons/yr x 2000 lb/ton / 8760 hr/yr = 4.79 lb/hr (will comply)

Process:	Rate (tons sand/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	
9 Shell Core Machines (7 - 1960, 2- 1983) Source of VOC Emission Factor: AIRS US EPA 450-90-003 and Form R Reporting of Binder Chemicals Used in Foundries, 1998 VOC = Formaldehyde	1.00	PM	0.00	0.00	none	0.00%	0.00	
		PM-10	0.00	0.00	none	0.00%	0.00	
		SO2	0.00	0.00	none	0.00%	0.00	
		NOx	0.00	0.00	none	0.00%	0.00	
		VOC	0.0200	0.088	none	0.00%	0.088	
		CO	---	0.00	none	0.00%	0.00	
		Lead	---	0.00	none	0.00%	0.00	
VOC = 0.00001 pounds of formaldehyde per pound of sand = 0.02 pounds per ton of sand							Total HAPs	0.088

PM and PM10 emissions accounted for in sand handling

Process:	Rate (tons sand/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)
Two (2) Isocore Core Machines (1985)	@ 1,500 lbs/hr = 0.75 tons of cores/hr						

Resins PM and PM10 emissions accounted for in sand handling

1.5% binder (resin) content
 Resin usage = 0.015 *1500= 22.5 lbs of resin per hour
 0.05 pounds of VOC per pound of resin 1.125 lbs of VOC per hour

Catalyst

2 pounds per hour of 100% VOC catalyst added
 Assume all catalyst = amine gas = TEA
 Total VOC 3.13 lbs of VOC per hour
 Atlas Requested: 3.50 lbs of VOC per hour

**HAP/TEA
 tons/yr**

Total 15.3 tons of VOC/yr

Potential Throughput 569400 tons/year	Limited Hours 6,000

Process:	Rate (tons sand/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)
Sand Handling Disa #1 (1982) Source of Criteria	65	PM	3.6	1024.9	Baghouse D	99.900%	1.025	21.000	0.702
		PM-10	0.54	153.7	Baghouse D	99.900%	0.154	30.000	0.105
Pollutant Factors: FIRE 6.23 EPA SCC# 3-04-003-50									

Sand throughput based on May 5, 2004 stack test
 Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year
 Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:
 $P = 65 \text{ tons/hr}$

limit = $55 \times (65^{0.11}) - 40 = 47.1 \text{ lb/hr}$ (allowable)

with potential:
 $1.0 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.234 \text{ lb/hr}$ (will comply)

Potential Throughput 569400 tons/year	Limited Hours 6,000
---	------------------------

Process:	Rate (tons sand/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)	Emissions After Limits & Control (ton/yr)
Sand Handling Disa #2 (2000)	65	PM	3.6	1024.9	Baghouse D	99.900%	1.025	21.000	0.702
Source of Criteria		PM-10	0.54	153.7	Baghouse D	99.900%	0.154	30.000	0.105
Pollutant Factors:									
FIRE 6.23									
EPA SCC# 3-04-003-50									

Sand throughput based on May 5, 2004 stack test

Baghouse D is limited to 21.0 tons of PM and 30 tons of PM-10 per year by limited emission rate of 7.00 and 10.0 lbs/hr of PM and PM-10, respectively with 6,000 hours of operation per year

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 65 \text{ tons/hr}$$

$$\text{limit} = 55 \times (65^{0.11}) - 40 = 47.1 \text{ lb/hr (allowable)}$$

with potential:

$$1.0 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.234 \text{ lb/hr (will comply)}$$

On June 30, 2004, Atlas Foundry Company, Inc. agree to not to treat any iron with the magnesium treatment station and therefore, there will be no emissions from this process in the future.

Limited Throughput 0 tons/year

Process:	Rate (tons iron/hr)	Pollutant	Emission Factor (lb/ton produced)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)	Emissions After Limits & Control (ton/yr)
Magnesium Treatment (2000)	0	PM	1.80	0.00	Sigmat Process	95.00%	0.00	0.000
Source of Criteria		PM-10	1.80	0.00	Sigmat Process	95.00%	0.00	0.000
Pollutant Factors:		SO2	0.00	0.00			0.00	0.000
FIRE 6.01		NOx	0.00	0.00			0.00	0.000
SCC# 3-04-003-21		VOC	0.01	0.00			0.000	0.000
AP-42 Ch 12.10		CO	0.00	0.00			0.000	0.000
Fifth edition 1995		Lead	0.04	0.00	Sigmat Process	95.00%	0.000	0.000
		Total HAPs					0.000	0.000

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 0 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (0^{0.67}) = 0.0 \text{ lb/hr (allowable)}$$

with potential:

$$0.0 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.000 \text{ lb/hr (will comply)}$$

Methodology:

Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr

Potential Emissions after controls = (1-efficiency/100) x Ebc

1 lb = 2000 tons

Process:	Rate (tons sand/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (ton/yr)	Type of control	Control Efficiency (%)	Emissions After Control (ton/yr)
Core Sand System	0.75	PM	3.6	11.8	Filter	95.0%	0.591
Source of Criteria		PM-10	0.54	1.8	Filter	95.0%	0.591
Pollutant Factors:							
FIRE 6.23							
EPA SCC# 3-04-003-50							

electd

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 0.75 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (0.75^{0.67}) = 3.38 \text{ lb/hr (allowable)}$$

with potential:

$$0.591 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.135 \text{ lb/hr (will comply)}$$

Unpaved Roads

3.0 trips/hr x
 0.100 miles/roundtrip x
 8760 hrs/yr =

2628.0 miles per year

For PM
 $Ef = k * [(s/12)^{0.7}] * [(W/3)^b] * [(365-p)/365]$
 5.38
 4.9
 4.8
 0.45
 39
 125

For PM-10
 $Ef = k * [(s/12)^{0.9}] * [(W/3)^b] * [(365-p)/365]$
 $= 1.37$ lb/mile
 where $k = 1.5$ for PM-10 ($k=4.9$ for PM-30 or TSP)
 $s = 4.8$ mean % silt content of unpaved roads
 $b = 0.45$ (b also = 0.45 for PM-30 or TSP)
 $W = 39$ tons average vehicle weight
 $p = 125$.254mm of precipitation (See Figure 13.2.2-1)

5.38 lb/mi x 2628 mi/yr = **PM** 14.14 tons/yr
 2000 lb/ton

1.37 lb/mi x 2628 mi/yr = **PM-10** 3.59 tons/yr
 2000 lb/ton

Reflecting melt limit of 30,000 tons per year, **PM** 2.75 tons/yr

PM-10 0.70 tons/yr

Other Insignificant Activities Actual Emissions Calculated by Atlas Foundry as per correspondence received December 26, 2001

	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Back-up Gasoline Generator	0.000001	0.000001	0.0000012	0.0000229	0.00004265	0.00088	0.00005915
Grinding and Machining	2.41	2.41	0	0	0	0	0
Mold Release Agents	0	0	0	0	0.005175	0	0.005175
Degreasing Operations	0	0	0	0	0.0201	0	0.000402
Natural Gas @ 4.509 mmBtu/hr	0.038	0.15	0.012	1.98	0.109	1.66	0.037
Subtotal Other Insignificant	2.45	2.56	0.012	1.98	0.134	1.66	0.043

Emergency Diesel Generator (2004)

400.0 Output Horsepower

200000.0 HP-Hrs/yr

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.220	0.220	0.205	3.10	0.251	0.668

Methodology

Potential Throughput (hp-hr/yr) = hp * 500 hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

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

*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Proposed summary of Emissions Before Controls at limited throughput of 37,300 tons/yr

Emission Unit	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Scrap & Charge Handling (1996/2000)	23.1	13.9	0.000	0.000	0.000	0.000	0.119
Melting - 2 Electric	34.7	33.1	0.000	0.000	0.000	97.600	2.535
Pouring/Casting Disa #1 & #2 (1982 & 2000)	122.6	28.9	1.75	0.876	12.3	0.000	25.735
Castings Cooling Disa #1 (1982)	61.3	61.3	0.000	0.000	0.000	0.000	0.000
Pouring/Casting Disa #1 & #2 (1982 & 2000)	122.6	28.9	0.000	0.000	0.000	0.000	0.944
Castings Cooling Disa #2 (2000)	61.3	61.3	0.000	0.000	0.000	0.000	0.000
Aisco Rotary Drum (1982)	140	98.1	0.000	0.000	26.28	0.000	0.719
Didion Rotary Media Drum (1999)	140	98.1	0.000	0.000	26.28	0.000	0.719
Two (2) Shot Blasters (Atlas 1963, Peru 1982)	745	74.5	0.000	0.000	0.000	0.000	0.346
Mesh Belt Shotblast (1999)	372	37.2	0.000	0.000	0.000	0.000	0.173
Continuous Shotblast (2004)	745	74.5	0.000	0.000	0.000	0.000	0.346
3 Stand Grinders (1993, 1993, 1994)	0.350	0.158	0.000	0.000	0.000	0.000	0.277
1 Belt Sander (2002)	0.088	0.039	0.000	0.000	0.000	0.000	0.069
9 Shell Core Machines (7 - 1960, 2- 1983)	0.000	0.000	0.000	0.000	0.088	0.000	0.088
Two (2) Isocure Core Machines (1985)	0.000	0.000	0.000	0.000	15.33	0.000	8.76
Sand Handling Disa #1 (1982)	1024.9	153.7	0.000	0.000	0.000	0.000	0.000
Sand Handling Disa #2 (2000)	1024.9	153.7	0.000	0.000	0.000	0.000	0.000
Magnesium Treatment (2000)	0.0	0.0	0.000	0.000	0.000	0.000	0.00
Core Sand System	11.8	1.77	0.000	0.000	0.000	0.000	0.000
Unpaved Roads	7.07	1.80	0.000	0.000	0.000	0.000	0.000
Emergency Diesel Generator (2004)	0.220	0.220	0.205	3.10	0.251	0.668	0.000
Other Insignificant Activities	2.45	2.56	0.012	1.98	0.134	1.66	0.043
Total	4639	924	1.97	5.96	80.6	99.93	40.9

Proposed Summary of Emissions After Controls at limited throughput of 37,300 tons/yr

Emission Unit	PM	*PM-10	SO2	NOx	VOC	CO	Total HAPs
Scrap & Charge Handling (1996/2000)	2.31	1.39	0.000	0.000	0.000	0.000	0.0119
Melting - 2 Electric	3.47	3.31	0.000	0.000	0.000	91.012	0.2535
Pouring/Casting Disa #1 & #2 (1982 & 2000)	122.640	28.908	1.752	0.876	12.26	0.000	25.7347
Castings Cooling Disa #1 (1982)	0.061	0.061	0.000	0.000	0.000	0.000	0.0000
Pouring/Casting Disa #1 & #2 (1982 & 2000)	0.123	0.029	0.000	0.000	0.00	0.000	0.0009
Castings Cooling Disa #2 (2000)	0.061	0.061	0.000	0.000	0.000	0.000	0.0000
Aisco Rotary Drum (1982)	26.6	18.6	0.000	0.000	26.28	0.000	0.1366
Didion Rotary Media Drum (1999)	0.140	0.098	0.000	0.000	26.280	0.000	0.0007
Two (2) Shot Blasters (Atlas 1963, Peru 1982)	0.745	0.074	0.000	0.000	0.000	0.000	0.0003
Mesh Belt Shotblast (1999)	0.372	0.037	0.000	0.000	0.000	0.000	0.0002
Continuous Shotblast (2004)	13.11	13.10	0.000	0.000	0.000	0.000	0.0061
3 Stand Grinders (1993, 1993, 1994)	0.006	0.028	0.000	0.000	0.000	0.000	0.005
1 Belt Sander (2002)	21.000	30.000	0.000	0.000	0.000	0.000	0.00007
9 Shell Core Machines (7 - 1960, 2- 1983)	0.00	0.00	0.000	0.000	0.088	0.000	0.088
Two (2) Isocure Core Machines (1985)	0.00	0.00	0.000	0.000	15.33	0.000	8.76
Sand Handling Disa #1 (1982)	1.025	0.154	0.000	0.000	0.000	0.000	0.0000
Sand Handling Disa #2 (2000)	1.025	0.154	0.000	0.000	0.000	0.000	0.0000
Magnesium Treatment (2000)	0.00	0.00	0.000	0.000	0.000	0.000	0.0000
Core Sand System	0.591	0.591	0.000	0.000	0.000	0.000	0.0000
Unpaved Roads	7.07	1.80	0.000	0.000	0.000	0.000	0.0000
Emergency Diesel Generator (2004)	0.220	0.220	0.205	3.10	0.251	0.668	0.000
Other Insignificant Activities	2.451	2.563	0.012	1.980	0.134	1.661	0.043
Total	203.1	101.2	1.97	5.96	80.6	93.34	35.0

*Limit shall be applied

Proposed Summary of Emissions After Limited Throughput of 37,300 tons/yr and Controls (tons per year)

Emission Unit	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Scrap & Charge Handling (1996/2000)	1.12	0.67	0.000	0.000	0.000	0.000	0.0057
Melting - 2 Electric	2.80	5.60	0.000	0.000	0.000	91.012	0.0868
Pouring/Casting Disa #1 & 2 (1982 & 2000)	26.11	6.15	0.373	0.187	2.611	0.000	5.4789
Castings Cooling Disa #1 (1982)	21.00	30.00	0.000	0.000	0.000	0.000	0.0000
Pouring/Casting Disa #1 & #2 (1982 & 2000)	21.00	30.00	0.000	0.000	0.000	0.000	0.0002
Castings Cooling Disa #2 (2000)	21.00	30.00	0.000	0.000	0.000	0.000	0.0000
Aisco Rotary Drum (1982)	11.34	11.34	0.000	0.000	11.190	0.000	0.1366
Didion Rotary Media Drum (1999)	21.00	30.00	0.000	0.000	18.000	0.000	0.0007
Two (2) Shot Blasters (Atlas 1963, Peru 1982)	21.00	30.00	0.000	0.000	0.000	0.000	0.0001
Mesh Belt Shotblast (1999)	21.00	30.00	0.000	0.000	0.000	0.000	0.0001
Continuous Shotblast (2004)	13.14	13.14	0.000	0.000	0.000	0.000	0.0061
3 Stand Grinders (1993, 1993, 1994)	0.006	0.028	0.000	0.000	0.000	0.000	0.0049
1 Belt Sander (2002)	21.000	30.000	0.000	0.000	0.000	0.000	0.00007
9 Shell Core Machines (7 - 1960, 2- 1983)	0.000	0.000	0.000	0.000	0.088	0.000	0.088
Two (2) Isocure Core Machines (1985)	0.000	0.000	0.000	0.000	15.3	0.000	8.76
Sand Handling Disa #1 (1982)	21.00	30.00	0.000	0.000	0.000	0.000	0.0000
Sand Handling Disa #2 (2000)	21.00	30.00	0.000	0.000	0.000	0.000	0.0000
Magnesium Treatment (2000)	0.00	0.00	0.000	0.000	0.000	0.000	0.0000
Core Sand System	0.591	0.591	0.000	0.000	0.000	0.000	0.0000
Unpaved Roads	2.75	0.701	0.000	0.000	0.000	0.000	0.0000
Emergency Diesel Generator (2004)	0.220	0.220	0.205	3.10	0.251	0.668	0.000
Other Insignificant Activities	2.451	2.563	0.012	1.980	0.134	1.661	0.043
Total	81.5	71.0	0.590	5.27	47.6	93.34	14.6

Note Baghouse D controlling several emission units is limited to a total of 21.0 TPY of PM and 30.0 TPY of PM-10 (see Page 13)

Baghouse A

Proposed Summary of Emissions After Limited Throughput of 37,300 tons/yr and Controls (tons per year)

Emission Unit	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Continuous Shotblast (2004)	13.1124	13.1050	0.0000	0.0000	0.0000	0.0000	0.0000
3 Stand Grinders (1993, 1993, 1994)	0.0062	0.0278	0.0000	0.0000	0.0000	0.0000	0.0049
Total	13.14	13.14	0.00	0.000	0.0000	0.0000	0.005

Baghouse D

Proposed Summary of Emissions After Limited Throughput of 37,300 tons/yr and Controls (tons per year)

Emission Unit	PM	PM-10
Castings Cooling Disa #1 (1982)	21.00	30.00
Pouring/Casting Disa #1 & #2 (1982 & 2000)	21.00	30.00
Castings Cooling Disa #2 (2000)	21.00	30.00
Didion Rotary Media Drum (1999)	21.00	30.00
Sand Handling Disa #1 (1982)	21.00	30.00
Sand Handling Disa #2 (2000)	21.00	30.00
Two (2) Shot Blasters (Atlas 1963, Peru 1982)	21.00	30.00
Mesh Belt Shotblast (1999)	21.00	30.00
1 Belt Sander (2002)	21.00	30.00
Total	21.00	30.00

Baghouse D total limited to 21.0 tons per year of PM and 30.0 tons per year of PM-10

Baghouse E

Proposed Summary of Emissions After Limited Throughput of 37,300 tons/yr and Controls (tons per year)

Emission Unit	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Scrap & Charge Handling (1996/2000)	1.119	0.671	0.000	0.000	0.000	0.000	0.0057
Melting - 2 Electric	2.798	5.595	0.000	0.000	0.000	0.000	0.0868
Total	3.92	6.27	0.000	0.000	0.00	0.000	0.093

Scrubber C

Proposed Summary of Emissions After Limited Throughput of 37,300 tons/yr and Controls (tons per year)

Emission Unit	PM	PM-10	SO2	NOx	VOC	CO	Total HAPs
Aisco Rotary Drum (1982)	11.34	11.34	0.000	0.000	11.190	0.000	0.0582
Total	11.34	11.34	0.000	0.000	11.19	0.000	0.058

**Summary of HAPs (TPY)
 Before Controls**

	Charge Handling	Electric Induction	Uncontrolled Pouring Casting Disa 1 and 2	Disa Aisco Rotary Drum	Didion Rotary Media Drum	2 Shot blasters Atlas & Peru	Mesh Belt Shot Blast	Continuous Shotblast	Controlled Pouring Casting Disa 1 and 2
Chromium	0.0089	0.0089	0.0701	0.0534	0.0534	0.0000	0.0000	0.0000	0.0701
Cobalt	0.0008	0.0008	0.0057	0.0044	0.0044	0.0000	0.0000	0.0000	0.0057
Nickel	0.0154	0.0154	0.1231	0.0937	0.0937	0.0000	0.0000	0.0000	0.1231
Arsenic	0.0031	0.0031	0.0241	0.0184	0.0184	0.0968	0.0484	0.0968	0.0241
Cadmium	0.0015	0.0015	0.0110	0.0083	0.0083	0.0447	0.0223	0.0447	0.0110
Manganese	0.0000	0.8672	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Selenium	0.0004	0.0004	0.0018	0.0013	0.0013	0.0074	0.0037	0.0074	0.0018
Lead	0.0887	1.6381	0.7082	0.5396	0.5396	0.1971	0.0986	0.1971	0.7082
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	24.7908	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.5354	25.7347	0.7192	0.7192	0.3460	0.1730	0.3460	0.9439

**Before Controls
 Continued**

	3 Stand Grinders	1 Stand Grinder	9 Shell Core Machines	2 Isocure Machines	Disa 1 Sand Handling	Disa 2 Sand Handling	Magnesium Treatment	Subtotals
Chromium	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.265
Cobalt	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.022
Nickel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.464
Arsenic	0.0774	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.430
Cadmium	0.0357	0.0089	0.0000	0.0000	0.0000	0.0000	0.0000	0.198
Manganese	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.867
Selenium	0.0060	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000	0.033
Lead	0.1577	0.0394	0.0000	0.0000	0.0000	0.0000	0.0000	4.912
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	0.0876	8.7600	0.0000	0.0000	0.0000	33.638
Total	0.2768	0.0692	0.0876	8.7600	0.0000	0.0000	0.0000	40.8

**Summary of HAPs (TPY)
 After Controls**

	Charge Handling	Electric Induction	Uncontrolled Pouring Casting Disa 1 and 2	Disa Aisco Rotary Drum	Didion Rotary Media Drum	2 Shot Blasters Atlas & Peru	Mesh Belt Shot Blast	Continuous Shotblast	Controlled Pouring Casting Disa 1 and 2
Chromium	0.0009	0.0009	0.07008	0.0102	0.0001	0.0000	0.0000	0.0000	0.0001
Cobalt	0.0001	0.0001	0.00569	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000
Nickel	0.0015	0.0015	0.12308	0.0178	0.0001	0.0000	0.0000	0.0000	0.0001
Arsenic	0.0003	0.0003	0.02409	0.0035	0.0000	0.0001	0.0000	0.0017	0.0000
Cadmium	0.0002	0.0002	0.01095	0.0016	0.0000	0.0000	0.0000	0.0008	0.0000
Manganese	0.0000	0.0867	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Selenium	0.0000	0.0000	0.0018	0.0002	0.0000	0.0000	0.0000	0.0001	0.0000
Lead	0.0089	0.1638	0.7082	0.1025	0.0005	0.0002	0.0001	0.0035	0.0007
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	24.7908	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0119	0.2535	25.7347	0.1366	0.0007	0.0003	0.0002	0.0061	0.0009

**After Controls
 Continued**

	3 Stand Grinders	1 Stand Grinder	9 Shell Core Machines	2 Isocure Machines	Disa 1 Sand Handling	Disa 2 Sand Handling	Magnesium Treatment	Subtotals
Chromium	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.082
Cobalt	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.007
Nickel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.144
Arsenic	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.031
Cadmium	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.014
Manganese	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.087
Selenium	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.002
Lead	0.0028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.99
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	0.0876	8.7600	0.0000	0.0000	0.0000	33.64
Total	0.0049	0.0001	0.0876	8.7600	0.0000	0.0000	0.0000	35.0

**Summary of HAPs (TPY)
 After Controls & Limits**

	Charge Handling	Electric Induction	Uncontrolled Pouring Casting Disa 1 and 2	Disa Aisco Rotary Drum	Didion Rotary Media Drum	2 Shot blasters Atlas & Peru	Mesh Belt Shot Blast	Continuous Shotblast	Controlled Pouring Casting Disa 1 and 2
Chromium	0.0004	0.0004	0.0149	0.0043	0.0000	0.0000	0.0000	0.0000	0.0000
Cobalt	0.0000	0.0000	0.0012	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
Nickel	0.0007	0.0007	0.0262	0.0076	0.0000	0.0000	0.0000	0.0000	0.0000
Arsenic	0.0001	0.0001	0.0051	0.0015	0.0000	0.0000	0.0000	0.0017	0.0000
Cadmium	0.0001	0.0001	0.0023	0.0007	0.0000	0.0000	0.0000	0.0008	0.0000
Manganese	0.0000	0.0420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Selenium	0.0000	0.0000	0.0004	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000
Lead	0.0043	0.0434	0.1508	0.0437	0.0002	0.0001	0.0001	0.0035	0.0002
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	5.2780	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0057	0.0868	5.4789	0.0582	0.0003	0.0001	0.0001	0.0061	0.0002

**After Controls & Limits
 Continued**

	3 Stand Grinders	1 Stand Grinder	9 Shell Core Machines	2 Isocure Machines	Disa 1 Sand Handling	Disa 2 Sand Handling	Magnesium Treatment	Subtotals
Chromium	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.020
Cobalt	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.002
Nickel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.035
Arsenic	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.010
Cadmium	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.005
Manganese	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.042
Selenium	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.001
Lead	0.0028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.249
Organic HAPs (TEA & Formaldehyde)	0.0000	0.0000	0.0876	8.7600	0.0000	0.0000	0.0000	14.126
Total	0.0049	0.0001	0.0876	8.7600	0.0000	0.0000	0.0000	14.489