



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: February 14, 2006

RE: Harrison Steel Castings Company / 045-21159-00002

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mr. Pete Bodine
Harrison Steel Castings Company
900 Mound Street
P. O. Box 60
Attica, IN 47918

February 14, 2006

Re: 045-21159
Fourth Significant Permit Modification to
Part 70 Permit No.: 045-6002-00002

Dear Mr. Bodine:

Harrison Steel Castings Company was issued a Part 70 permit on November 30, 2001, for the operation of a steel and ductile iron castings plant. An application to modify the source was received by the Office of Air Quality (OAQ) on March 28, 2005. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification includes the addition of a new core line to supplement the existing core production facilities and the replacement of a Shot Blast unit L3/4-NTT with a new shot blast unit as follows:

- (a) One core line, identified as "Over 500 lb Core Line", including a Pepset mold making machine with a maximum capacity of 45 tons per hour, a sand mixer with a maximum capacity of 1,500 pounds per minute, two (2) 350-ton sand storage silos, one (1) 150-ton sand storage silo, and three (3) sand transporters, controlled by two (2) bin vents and one (1) 5,000 cfm dust collector.
- (b) ~~Two (2)~~ **One (1)** twin table blast machines, identified as ~~L3/4-NTT and L3/4 - STT~~, both constructed in 1961 each with a maximum capacity of 25 tons of steel per hour with emissions from ~~L3/4-NTT controlled by baghouse DC16 and emissions from L3/4 - STT controlled by baghouse DC18.~~

One (1) blast machine, identified as LN4-3 Wheel Blast, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.

All other conditions of the permit shall remain unchanged and in effect



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 Alic Bent, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or at 973-575-2555, extension 3206, or dial 1-800-451-6027, and ask for extension 3-6878.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
AB / EVP

cc: File - Fountain County
U.S. EPA, Region V
Fountain County Health Department
Air Compliance Section Inspector – Dick Sekula
Compliance Data Section - Karen Ampil
Administrative and Development
Technical Support and Modeling



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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Harrison Steel Castings Company
900 North Mound Street
Attica, Indiana 47918

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Table with 2 columns: Permit details (Operation Permit No., Issued by, Modifications) and Dates (Issuance Date, Expiration Date). Includes information for Harrison Steel Castings Company and Paul Dubenetzky.

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel and ductile iron castings plant.

Responsible Official: Executive Vice President
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana
SIC Code: 3325, 3321
County Location: Fountain County
Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD;
Major Source, Section 112 of the Clean Air Act
1 of 28 Source Categories

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

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

- (1) The scrap and charge handling process, constructed in 1951, with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.
- (2) The melting process consisting of the following:
 - (a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.
 - (b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.
 - (c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

- (3) The pouring, cooling, and shakeout operations consisting of the following:
 - (a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.

- (b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
 - (c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC2 and DC3.
 - (f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.
- (4) One (1) magnesium treatment operation for producing ductile iron castings, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of steel per hour with emissions uncontrolled.
- (5) The shot blasting operations consisting of the following;
- (a) One (1) twin table blast machine, identified as L3/4 - STT, constructed in 1961, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC18.
 - (b) One (1) blast machine, identified as LN4-3 Wheel Blast, constructed in 2006, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.
 - (c) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.
 - (d) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.
 - (e) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.
 - (f) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.

- (g) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a baghouse, identified as DC23.
- (h) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.
- (i) One (1) blast machine, identified as LN7-3 wheel blast, constructed in 2004 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC8.
- (j) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.
- (k) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.
- (l) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (m) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (n) One (1) pangborn rotoblast machine, identified as LN2-T, to be constructed by 2005 with a maximum capacity of 6 tons of steel per hour with emissions controlled by baghouse, identified as DC-22.
- (6) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.
- (7) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.
- (8) Core and mold making operations consisting of the following:
 - (a) One (1) Isocure core making machine equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions, and with a one (1) ton new sand storage hopper and a seven (7) ton new sand storage hopper.
 - (b) One (1) Airset core making machine equipped with a mixer, identified as Pep Core, constructed in 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled. The Airset core making system consists of two (2) core sand mixers, one constructed in 1989 and the other to be constructed in 2005, with maximum capacities of 9 tons of sand per hour and 6 tons of sand per hour, respectively.

- (c) One (1) Pepset mold making machine equipped with a mixer, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) Oil core making machine, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) Airset core making machine equipped with a mixer, identified as Zircon, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
 - (f) Five (5) Oil Sand core making benches, constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour or 0.6 tons of CO₂ sand per hour.
 - (g) Two (2) Shell core making machines, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
 - (h) One (1) Shell core making machine constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.
 - (i) One (1) Airset core making machine equipped with a mixer, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.
 - (j) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.
- (9) One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour, with emissions uncontrolled.
- (10) One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:
- (a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
 - (b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
 - (c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by one (1) baghouse, identified as DC12, and exhausting to stack DC12;
 - (d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:
 - (1) six sand storage silos, each controlled by a bin vent;
 - (2) four (4) sand heaters;
 - (3) covered pneumatic conveyors for transporting sand from silos to mixer;

- (e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;
- (f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;
- (g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.
 - (1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;
 - (2) strike off operations;
 - (3) rollover draw/strip operations;
 - (4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;
 - (5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;
 - (6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and
 - (7) one mold closer process which puts the two halves of the mold together.

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

- (11) One core line, identified as "Over 500 lb Core Line", constructed in 2006, including:
 - (a) one (1) phenolic urethane no bake mold making machine with a maximum capacity of 45 tons per hour;
 - (b) one (1) sand mixer with a maximum capacity of 45 tons per hour;
 - (c) one (1) 350-ton sand storage silo;
 - (d) two (2) 100 ton sand storage silo;
 - (e) one (1) sand transporter;
 - (f) two (2) compaction tables; and
 - (g) two (2) sand heaters

the sand silos and sand mixer are controlled by two (2) bin vents.

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

- (a) Machining where an aqueous cutting coolant continuously floods the machining interface. [326 IAC 6-3-2]
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.[326 IAC 6-3-2]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]
 - (1) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, and DC37.
 - (2) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.
- (d) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.[326 IAC 6-3-2]
- (e) Flame wash - arc welding like torch to smooth castings after flame cutting.[326 IAC 6-3-2]
- (f) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.[326 IAC 6-3-2]

Mold making operations consisting of the following:

- (g) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.[326 IAC 6-3-2]
- (h) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977 with a maximum capacity of 26 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]
- (i) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]

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

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

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

SECTION B

GENERAL CONDITIONS

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

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

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

This permit is issued for a fixed term of five (5) years from the original date, 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.

B.3 Enforceability [326 IAC 2-7-7]

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

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

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

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

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]
[326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

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

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

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) 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.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) To the extent specifically designated by this permit or required by an applicable requirement, compliance reports (including testing, monitoring, reporting, and record keeping requirements set forth in Sections D) prepared by the Permittee and submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

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

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (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 contributes to any violation.
- (c) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (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 describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) 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 materials of substantial economic value.

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

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

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

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. 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.

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

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

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

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the 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,
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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

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

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

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

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

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

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

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy any records that must be kept under the conditions of this permit;
- (c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

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

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

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 7, 1995. The plan includes the following:

- (a) Using wet suppression for stockpiles and unpaved roads on an as-needed basis.
- (b) Sweeping paved roads on an as-needed basis.

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

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3). All required notifications shall be submitted to:

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

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

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or Renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM 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.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

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

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

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 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) If the ERP is disapproved by IDEM, OAQ the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2008 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

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

The statement must be submitted to:

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

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

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

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports and support information 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 kept 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.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

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

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

Stratospheric Ozone Protection

C.22 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 2-7-5(15)]

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

The scrap and charge handling process, constructed in 1951 with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.

Note: Emissions from the scrap yard are fugitive emissions.

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

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the scrap and charge handling process shall not exceed 35.0 pounds per hour when operating at a process weight rate of 24.5 tons of charge materials 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:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.2

FACILITY OPERATION CONDITIONS

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

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

The melting process consisting of the following:

- (a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.
- (b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.
- (c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

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

D.2.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the iron and steel foundry except when otherwise specified in 40 CFR 63 Subpart EEEEE. The Permittee must comply with these requirements on and after April 22, 2004.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.

D.2.2 National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries [40 CFR Part 63, Subpart EEEEE]

- (a) The affected source, the iron and steel foundry, is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, (40 CFR 63, Subpart EEEEE), effective April 22, 2004. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart EEEEE on and after the date that is three years after April 23, 2007, except as provided in paragraph (e), or accept and meet an enforceable HAP emissions limit below the major source threshold prior to April 23, 2007.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.
- (c) The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart EEEEE:

- (1) Melting process, consisting of three (3) electric arc furnaces (EAF2, EAF3 and EAF4);
 - (2) Pouring, cooling and shakeout operations, listed in Section D.3;
 - (3) Core and mold making operations, listed in Section D.7;
 - (4) Airset molding line, listed in Section D.8;
 - (5) Mold making operations, listed in Section D.9; and
 - (6) Fugitive emissions from foundry operations.
- (d) The definitions of 40 CFR 63, Subpart EEEEE at 40 CFR 63.7765 are applicable to the affected source.
- (e) Pursuant to 40 CFR 63.7700(a) and 40 CFR 63.7683(b), the Permittee shall comply with the certification requirements in 40 CFR 63.7700(b) no later than April 22, 2005.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (1) The allowable PM emission rate from the electric arc furnace (EAF2) shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of metal per hour.
- (2) The allowable PM emission rate from the electric arc furnace (EAF3) shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal per hour.
- (3) The allowable PM emission rate from the electric arc furnace (EAF4) shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal per hour.

The pounds per hour limitations were 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.2.4 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse DC40 controlling the electric arc furnace (EAF4) shall not exceed 5.48 pounds per hour.
- (b) The PM-10 emissions from the baghouse DC40 controlling the electric arc furnace (EAF4) shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2(PSD) and 40 CFR 52.21 do not apply.

D.2.5 Electric Arc Furnace Maximum Capacity

- (a) The maximum melt rate of the electric arc furnace (EAF2) shall not exceed 4.5 tons of steel or iron per hour.
- (b) The maximum melt rate of the electric arc furnace (EAF3) shall not exceed 10 tons of steel or iron per hour.
- (c) The maximum melt rate of the electric arc furnace (EAF4) shall not exceed 10 tons of steel or iron per hour.

Any change or modification to these units that would increase the capacity will need prior approval from IDEM.

D.2.6 Electric Arc Furnace Production [40 CFR 60, Subpart AAa]

None of the electric arc furnaces at this source shall be used to produce any intermediate products, such as steel bars, billets, etc. Therefore the requirements of the New Source Performance Standard (NSPS) Subpart AAa (Electric Arc Furnaces) shall not apply.

D.2.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these electric arc furnaces and all baghouses listed in this section.

Compliance Determination Requirements

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 60.275a][326 IAC 2-1.1-11]

No later than 12 months after issuance of this permit, the Permittee shall perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.2.3 and D.2.4. PM testing is required for baghouses DC4, DC5, and DC40. PM10 testing is only required for baghouse DC40 controlling the electric arc furnace EAF4. These tests shall be repeated at least once every two and a half (2.5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

D.2.9 Particulate Matter

In order to comply with the requirements of Conditions D.2.3 and D.2.4, the following conditions shall apply:

- (a) The baghouses DC4 and DC38 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF2 is in operation.
- (b) The baghouses DC5 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF3 is in operation.
- (c) The baghouses DC40 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF4 is in operation.
- (d) The baghouses DC42 and DC38 for PM and PM10 control shall be in operation at all times while oxygen lancing is conducted.
- (d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.2.10 Work Practice Standards [40 CFR 63, Subpart EEEEE]

Pursuant to 40 CFR 63.7700 (b), the Permittee must prepare and operate at all times according to a written certification that the foundry purchases and uses only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids. For the purpose of this rule, "free organic liquids" is defined as material that fails the paint filter test by EPA Method 9095A, "Paint Filter Liquids Test" (Revision 1, December 1996), as published in EPA Publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (incorporated by reference—see 40 CFR 63.14). Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned, to the extent practicable, such that the materials do not include lead components, mercury switches, plastics, or free organic liquids can be included in this certification.

D.2.11 Visible Emissions Notations

- (a) Visible emission notations of each of the baghouse (DC4, DC38, DC5, DC40, and DC42) stack exhaust(s) 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 start-up or shut down times.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.12 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (DC4, DC38, DC5, DC40, and DC42) used in conjunction with the electric arc furnaces (EAF2, EAF3, and EAF4), at least once per day when the associated electric arc furnace is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the range of 2.0 - 8.0 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 and Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.2.13 Broken or Failed Bag Detection

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

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

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

D.2.14 Record Keeping Requirements

- (a) In order to document compliance with Condition D.2.11, the Permittee shall maintain records of the visible emission notations of each of the electric arc furnace stack exhausts once per day.
- (b) In order to document compliance with condition D.2.12, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.15 National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries - Notification Requirements [40 CFR 63, Subpart EEEEE]

- (a) Pursuant to 40 CFR 63.7750, the Permittee shall submit all of the notifications required by 40 CFR 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), 63.8(f)(4) and (6), and 63.9(b) through (h) that apply to the affected source and chosen compliance method by the specified dates. These notifications include, but are not limited to, the following:
 - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) no later than August 20, 2004.
 - (2) A Notification of Compliance Status containing the information required by 40 CFR 63.9(h) in accordance with 40 CFR 63.7750(e). The Notification of Compliance Status must be submitted:
 - (A) Before the close of business on the 30th calendar day following completion of the initial compliance demonstration for each initial compliance demonstration that does not include a performance test; and
 - (B) Before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in 40 CFR 63.10(d)(2) for each initial compliance demonstration that does include a performance test.

- (3) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7750(d).
 - (4) If required to use a continuous monitoring system (CMS), notifications, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
 - (5) If required to conduct opacity or visible emissions observations, the anticipated date for conducting the opacity or visible emission observations specified in 40 CFR 63.6(h)(5) in accordance with the appropriate schedule specified in 40 CFR 63.9(f) as required by 40 CFR 63.7750(a).
- (b) The notifications required by paragraph (a) shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue,
Indianapolis, Indiana 46204-2251
- The notifications require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The permit shield authorized by condition B.13 applies to paragraph (a) of this condition.

D.2.16 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12]
[326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart EEEEE, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than nine months prior to April 23, 2007.
- (c) The significant permit modification application shall be submitted to:

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

SECTION D.3

FACILITY OPERATION CONDITIONS

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

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

The pouring, cooling, and shakeout operations consisting of the following:

- (a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
- (b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
- (c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
- (d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
- (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC2 and DC3.
- (f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.

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

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting operation identified as POUR shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203.68 tons of metal and sand per hour.
- (b) The allowable PM emission rate from the casting cooling operation identified as POUR shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203.68 tons of metal and sand per hour.
- (c) The allowable PM emission rate from the pouring/casting operation identified as LDL shall not exceed 39.0 pounds per hour when operating at a process weight rate of 28.8 tons of metal and sand per hour.

- (d) The allowable PM emission rate from the casting cooling operation identified as LDL shall not exceed 39.0 pounds per hour when operating at a process weight rate of 28.8 tons of metal and sand per hour.
- (e) The allowable PM emission rate from the baghouse DC2 controlling the North shakeout operation shall not exceed 19.5 pounds per hour when operating at a process weight rate of 10.3 tons of metal and sand per hour.
- (f) The allowable PM emission rate from the baghouses DC12 and DC9 controlling the South shakeout operation shall not exceed 61.3 pounds per hour when operating at a process weight rate of 257 tons of metal and sand per hour.

The pounds per hour limitations for (c), (d), and (e) were 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:

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

The pounds per hour limitations for (a), (b), and (f) were calculated with the following equation:

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

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.2 PM10 Emission Credits [326 IAC 2-2]

Pursuant to PSD Significant Source Modification Number 045-12788-00002 issued on June 13, 2001, and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for the new Airset mold line for PM10, the PM10 emission credits must be made federally enforceable; therefore, the following requirements shall apply.

- (a) The amount of metal throughput to the mold line identified as POUR shall not exceed 34,304.8 tons per 12 consecutive month period. For the first month after startup of the Airset mold line, the limit shall be 2858.7 tons per month.
- (b) The PM10 emissions from the pouring/casting operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (c) The PM10 emissions from the castings cooling operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (d) The PM10 emissions from the baghouses identified as DC12 and DC9 controlling the shakeout system identified as the South shakeout, shall not exceed a combined total of 0.02 pounds per ton of metal throughput.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each baghouse listed in this section.

Compliance Determination Requirements

D.3.4 Particulate Matter

In order to comply with the requirements of Conditions D.3.1 and D.3.2, the following conditions shall apply:

- (a) The baghouses, DC2 and DC3, for PM and PM10 control shall be in operation at all times when the North Shakeout system is in operation.
- (b) The baghouses DC12 and DC9 for PM and PM10 control shall be in operation at all times when the South Shakeout system is in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the Airset line achieves maximum production rate, but no later than 180 days after initial start-up of the Airset line, the Permittee shall perform PM10 emissions testing on the baghouses DC12 and DC9 used to control the South shakeout system, and the pouring/casting and castings cooling operations associated with the mold line identified as POUR. Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.3.2. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

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

D.3.6 Visible Emissions Notations

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

D.3.7 Parametric Monitoring

The Permittee shall record the pressure drop across each of the baghouses used in conjunction with either of the shakeout systems, at least once per day when the associated shakeout system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the range of 2.0 - 8.0 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 and Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.3.8 Broken or Failed Bag Detection

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

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

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

D.3.9 Record Keeping Requirements

- (a) In order to document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the shakeout system stack exhaust(s) once per day.
- (b) In order to document compliance with condition D.3.7, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.3.2, the Permittee shall maintain records of the metal throughputs to the POUR line. These records shall be complete and sufficient to establish compliance with the emission limits established in D.3.2.
- (d) To document compliance with Condition D.3.2(e), the Permittee shall maintain records of the following
 - (1) all times when the south shakeout is in operation and
 - (2) all times when any one of the Airset shakeout units is in operation.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.10 Reporting Requirements

Quarterly summaries of the information to document compliance with Condition D.3.2(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 reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4

FACILITY OPERATION CONDITIONS

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

One (1) magnesium treatment operation for the production of ductile iron, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of iron per hour with emissions uncontrolled.

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

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

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the magnesium treatment process identified as DCTLE shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of iron 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.4.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The amount of iron throughput to the magnesium ductile treatment (DCTLE) operation shall not exceed 26,630 tons of iron per 12 consecutive month period.
- (b) The PM emissions from the magnesium ductile treatment operation (DCTLE) shall not exceed 1.80 pounds per ton of iron throughput.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

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

D.4.3 Record keeping Requirements

- (a) In order to document compliance with Condition D.4.2(a), the Permittee shall maintain records of the metal throughput to the magnesium ductile treatment process in tons of iron per month.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2(a) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5

FACILITY OPERATION CONDITIONS

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

The shot blasting operations consisting of the following:

- (a) One (1) twin table blast machine, identified as L3/4 - STT, constructed in 1961, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC18.
- (b) One (1) blast machine, identified as LN4-3 Wheel Blast, constructed in 2006, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.
- (c) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.
- (d) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.
- (e) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.
- (f) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.
- (g) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a baghouse, identified as DC23.
- (h) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with a maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.
- (i) One (1) blast machine, identified as LN7-3 wheel blast, constructed in 2004 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC8.
- (j) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.
- (k) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.
- (l) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (m) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (n) One (1) pangborn rotoblast machine identified as LN2-T, to be constructed by 2005 with a maximum capacity of 6 tons of steel per hour with emissions controlled by baghouse, identified as DC-22.

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

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

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from baghouse DC18 controlling the shotblast machine identified as the twin table shotblast machine L3/4-STT, shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour.
- (b) The allowable PM emission rate from baghouse DC16 controlling the blast machine identified as LN4-3 Wheel Blast, shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour.
- (c) The allowable PM emission rate from the baghouse DC7 controlling the shotblast machine identified as the Nelle Belle shotblast machine (Nelle) shall not exceed 46.3 pounds per hour when operating at a process weight rate of 60 tons of metal castings per hour.
- (d) The allowable PM emission rate from the baghouse DC17 controlling the shotblast machine identified as the Wheelabrator Frye shotblast machine (#16 Monorail) shall not exceed 36.1 pounds per hour when operating at a process weight rate of 25.7 tons of metal castings per hour.
- (e) The allowable PM emission rate from each of the baghouses DC30 and DC28 controlling the shotblast machines identified as the room blast shotblast machines LN3-Rm and LN5-S Rm, shall not exceed 16.5 pounds per hour when operating at a process weight rate of 8 tons of metal castings per hour each.
- (f) The allowable PM emission rate from the baghouse DC11 controlling the shotblast machine identified as the room blast shotblast machine LN5-N shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal castings per hour.
- (g) The allowable PM emission rate from the baghouse DC23 controlling the shotblast machine identified as the room blast shotblast machine LN2-N shall not exceed 22.9 pounds per hour when operating at a process weight rate of 13 tons of metal castings per hour.
- (h) The allowable PM emission rate from the baghouse DC10 controlling the shotblast machine identified as the tumble blast shotblast machine LN1-TMBL shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of metal castings per hour.
- (i) The allowable PM emission rate from the baghouse DC8 controlling the shotblast machine identified as the LN7-3 wheel blast shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour.
- (j) The allowable PM emission rate from the baghouse DC21 controlling the shotblast machine identified as the #18 monorail shotblast machine shall not exceed 20.9 pounds per hour when operating at a process weight rate of 11.4 tons of metal castings per hour.
- (k) The allowable PM emission rate from the baghouse DC33 controlling the shotblast machine identified as the room blast shotblast machine LN2-S Rm shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7 tons of metal castings per hour.
- (l) The allowable PM emission rate from the baghouse DC6 controlling the shotblast machines identified as the chill room tumble blast shotblast machine (Chill TmbL) and the chill room cabinet blast shotblast machine (Chill Cbnt) shall not exceed 33.3 pounds per hour when operating at a combined process weight rate of 22.8 tons of metal castings per hour.

- (m) The allowable PM emission rate from the baghouse DC22 controlling the shotblast machine identified as LN2-T rotoblast shall not exceed 13.62 pounds per hour when operating at a process weight rate of 6 tons of metal castings per hour.

The pounds per hour limitations for (a), and (c) through (l) above were 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:

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

The pounds per hour limitation for (b) above was calculated with the following equation:

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

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse DC23 controlling the LN2-N shot blast machine shall not exceed 5.48 pounds per hour.
- (b) The PM emissions from the baghouse DC21 controlling the #18 Monorail shot blast machine shall not exceed 5.48 pounds per hour.
- (c) The PM emissions from the baghouse DC33 controlling the LN2-S Rm shot blast machine shall not exceed 5.48 pounds per hour.
- (d) The PM emissions from the baghouse DC6 controlling the Chill room tumble blast shot blast machine (Chill Tmbl) and the Chill room cabinet blast shotblast machine (Chill Cbnt) shall not exceed 5.48 pounds per hour.
- (e) The PM emissions from the baghouse DC8 controlling the LN7-3 shot blast machine shall not exceed 4.50 pounds per hour.
- (f) The PM emissions from the baghouse DC22 controlling the LN2-T shot blast machine shall not exceed 1.18 pounds per hour.
- (g) The PM₁₀ emissions from the baghouse DC8 controlling the LN7-3 shot blast machine shall not exceed 2.70 pounds per hour.
- (h) The PM₁₀ emissions from the baghouse DC22 controlling the LN2-T shot blast machine shall not exceed 0.70 pounds per hour.
- (i) The PM emissions from the baghouse DC16 controlling the LN4-3 Wheel Blast machine shall not exceed 4.25 pounds per hour.
- (j) The PM₁₀ emissions from the baghouse DC16 controlling the LN4-3 shot blast machine shall not exceed 2.70 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each of the control devices listed in this section.

Compliance Determination Requirements

D.5.4 Particulate Matter

In order to comply with the requirements of Conditions D.5.1 and D.5.2, the following conditions shall apply:

- (a) The baghouse, DC16, for PM and PM10 control shall be in operation at all times when the LN4-3 wheel blast machine is in operation.
- (b) The baghouse, DC18, for PM and PM10 control shall be in operation at all times when the L3/4-STT shot blast machine is in operation.
- (c) The baghouse, DC7, for PM and PM10 control shall be in operation at all times when the Nelle Belle shot blast machine is in operation.
- (d) The baghouse, DC17, for PM and PM10 control shall be in operation at all time when the Wheelabrator Frye shot blast machine is in operation.
- (e) The baghouse, DC30, for PM and PM10 control shall be in operation at all times when the LN3-Rm shot blast machine is in operation.
- (f) The baghouse, DC28, for PM and PM10 control shall be in operation at all times when the LN5-SRm shot blast machine is in operation.
- (g) The baghouse, DC11, for PM and PM10 control shall be in operation at all times when the LN5-N shot blast machine is in operation.
- (h) The baghouse, DC23, for PM and PM10 control shall be in operation at all times when the LN2-N shot blast machine is in operation.
- (i) The baghouse, DC10, for PM and PM10 control shall be in operation at all times when the LN1-TMBL shot blast machine is in operation.
- (j) The baghouse, DC8, for PM and PM10 control shall be in operation at all times when the LN7-3 shot blast machine is in operation.
- (k) The baghouse, DC21, for PM and PM10 control shall be in operation at all times when the #18 Monorail shot blast machine is in operation.
- (l) The baghouse, DC33, for PM and PM10 control shall be in operation at all times when the LN2-S Rm shot blast machine is in operation.
- (m) The baghouse, DC6, shall be in operation at all times when the Chill Tmbl and Chill Cbnt shot blast machines are in operation.
- (n) The baghouse, DC22, for PM and PM10 control shall be in operation at all times when the LN2-T shot blast machine is in operation.

- (o) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.5.5 Visible Emissions Notations

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

D.5.6 Parametric Monitoring

The Permittee shall record the pressure drop across each of the baghouses used in conjunction with the shot blasting machines, at least once per day when the shot blasting machines are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouses-DC11 and DC30 is outside the range of 0.2 - 6.0 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 and Exceedances. When for any one reading, the pressure drop across each of the other baghouses listed in this section is outside the range of 2.0 - 6.0 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 and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.5.7 Broken or Failed Bag Detection

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

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.

Compliance with the above compliance monitoring requirement shall assure compliance with 40 CFR 64 requirements for Shot Blast Machine, identified as LN7-3, and controlled by baghouse, identified as DC-8.

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

D.5.8 Record Keeping Requirements

- (a) In order to document compliance with Condition D.5.5, the Permittee shall maintain records of visible emission notations of the shot blasting machines stack exhaust(s) once per day.
- (b) In order to document compliance with condition D.5.6, the Permittee shall maintain records of the pressure drop across each baghouse once per day.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6

FACILITY OPERATION CONDITIONS

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

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

- (a) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.
- (b) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.

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

D.6.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the baghouse DC41 controlling the North sand handling system shall not exceed 16.5 pounds per hour when operating at a process weight rate of 8 tons of sand per hour.
- (b) The allowable PM emission rate from the baghouses DC20, DC35, DC36, and DC39 controlling the South sand handling system shall not exceed 58.5 pounds per hour (total for all four baghouses) when operating at a process weight rate of 200 tons of sand per hour.

The pounds per hour limitation for (a) 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:

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

The pounds per hour limitation for (b) was calculated with the following equation:

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

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.6.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following condition shall apply:

- (a) The PM emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 0.072 pound per ton of sand.

- (b) The PM-10 emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 1.4 pounds per ton of sand.
- (c) The sand throughput to the North sand handling system shall not exceed 20,000 tons per 12 consecutive month period.
- (d) The PM emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.072 pound per ton of sand (total for all four baghouses combined).
- (e) The sand throughput to the South sand handling system shall not exceed 646,667 tons per 12 consecutive month period. This limit shall apply until the new Airset line begins operation. On and after the first day of operation of the new Airset line, the sand throughput to the South sand handling system shall not exceed 113,319.2 tons per 12 consecutive month period.
- (f) The PM10 emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.005 pound per ton of sand (total for all four baghouses combined).

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply. Compliance with (e) and (f) of this condition are necessary in order that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply to the new Airset mold line, as described in Section D.8 of this permit.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each of the baghouses listed in this section.

Compliance Determination Requirements

D.6.4 Particulate Matter

In order to comply with the requirements of Conditions D.6.1 and D.6.2, the following conditions shall apply:

- (a) The baghouse, DC41, for PM and PM10 control shall be in operation at all times when the North Sand Handling System is in operation.
- (b) The baghouses DC20, DC35, DC36, and DC39 for PM and PM10 control shall be in operation at all times when the South Sand Handling System is in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.6.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the Airset line achieves maximum production rate, but no later than 180 days after startup of the Airset line, the Permittee shall perform PM and PM10 emissions testing on the baghouses DC20, DC35, DC36, and DC39 used to control the South sand handling system using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.6.1 and D.6.2. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

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

D.6.6 Visible Emissions Notations

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

D.6.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses DC41, DC20, DC35, DC36, and DC39 used in conjunction with the sand handling systems, at least once per day when the sand handling systems are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the range of 2.0 - 8.0 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 and Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.6.8 Broken or Failed Bag Detection

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

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

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

D.6.9 Record Keeping Requirements

- (a) In order to document compliance with Condition D.6.6, the Permittee shall maintain records of visible emission notations of the sand handling systems stack exhausts once per day.

- (b) In order to document compliance with condition D.6.7, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere.
- (c) In order to document compliance with Condition D.6.2(c) and (e), the Permittee shall maintain records of the sand throughputs to the North and South sand handling systems in tons of sand per month.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.2(c) and (e) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.7

FACILITY OPERATION CONDITIONS

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

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

Core and mold making operations consisting of the following:

- (a) One (1) Isocure core making machine, equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions and with a one ton new sand storage hopper and a seven (7) ton new sand storage hopper.
- (b) One (1) Airset core making machine, identified as Pep Core, constructed in 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled. The Airset core making system consists of two (2) core sand mixers, one constructed in 1989 and the other to be constructed in 2005, with maximum capacities of 9 tons of sand per hour and 6 tons of sand per hour, respectively.
- (c) One (1) Pepset mold making machine, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.
- (d) One (1) Oil core making machine, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
- (e) One (1) Airset core making machine equipped with a mixer, identified as Zircon, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
- (f) Five (5) Oil Sand core making benches, constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour or 0.6 tons of CO₂ sand per hour.
- (g) Two (2) Shell core making machines, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
- (h) One (1) Shell core making machine, constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.
- (i) One (1) Airset core making machine, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.
- (j) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.

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

D.7.1 VOC Emissions [326 IAC 8-1-6] [326 IAC 2-2]

The Isocure core making machine and the Pepset mold making machine each have potential emissions of VOC greater than 40 tons per year, therefore, in order to render the requirements of 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the following conditions shall apply:

- (a) The scrubber controlling the Isocure core machine shall be in operation at all times when the core machine is in operation.

- (b) The VOC/TEA emissions from the scrubber controlling the TEA gas emissions from the Isocure core making machine shall not exceed 2.54 pound per hour.
- (c) The uncontrolled VOC emissions from the Isocure core making machine and mixer shall not exceed 5.43 pounds per hour.
- (d) The VOC emissions from the Pepset mold making machine shall not exceed 5.48 pounds per hour.
- (e) The sand throughput to the Pepset mold making machine shall not exceed 73,846.8 tons per 12 consecutive month period.
- (f) The total resin usage for the Airset core making machine sand mixer, constructed in 2005, shall be limited to less than 1,000,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of less than 25 tons per year.
- (g) The VOC emissions from the Airset core making machine sand mixer shall not exceed 0.05 pounds of VOC per pound of core resin.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits will also render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.7.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.7.3 VOC Control

In order to comply with the requirements of Condition D.7.1, the scrubber for VOC (TEA) emissions control shall be in operation at all times when the Isocure core machine is in operation.

D.7.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 36 months after issuance of this permit, the Permittee shall perform VOC (TEA) emissions testing on the scrubber used to control the Isocure core machine using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.7.1. These tests shall be repeated at least 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 2-7-6(1)] [326 IAC 2-7-5(1)]

D.7.5 Parametric Monitoring

The Permittee shall monitor and record the acid content, pressure drop, and flow rate of the scrubber, at least once per day when the associated Isocure core machine is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the scrubber is outside the range of 2.0 and 6.0 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. When for any one reading, the flow rate of the scrubber is less than 120 gallons per minute, or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. When for any one reading, the acid content of each of the scrubbers is greater than a pH level of 2, or an acid content established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.7.6 Failure Detection

In the event that a scrubber failure has been observed:

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

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

D.7.7 Record Keeping Requirements

(a) In order to document compliance with condition D.7.5, the Permittee shall maintain records of the following operational parameters for the scrubber once per day during normal operation:

- (1) pressure drop;
- (2) flow rate; and
- (3) acid content (pH level).

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

D.7.8 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.7.1(e) and D.7.1(f) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.8

FACILITY OPERATION CONDITIONS

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

One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:

- (a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
- (b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
- (c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by one (1) baghouse, identified as DC12, and exhausting to stack DC12;
- (d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:
 - (1) six sand storage silos, each controlled by a bin vent;
 - (2) four (4) sand heaters;
 - (3) covered pneumatic conveyors for transporting sand from silos to mixer;
- (e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;
- (f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;
- (g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.
 - (1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;
 - (2) strike off operations;
 - (3) rollover draw/strip operations;
 - (4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;
 - (5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;
 - (6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and
 - (7) one mold closer process which puts the two halves of the mold together.

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

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

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

D.8.1 BACT for VOC [326 IAC 2-2-3(a)(3)] [326 IAC 8-1-6] [326 IAC 2-4.1-1]

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules) and 326 IAC 8-1-6 (BACT), and in order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) not applicable to the new Airset line, the Permittee shall comply with the following BACT requirements:

- (a) The VOC emissions from the pouring/casting and castings cooling operations shall be limited to 0.14 pounds per ton of metal poured and 2.20 pounds per hour.
- (b) The VOC emissions from the shakeout operations shall be limited to 1.2 pounds per ton of metal and 18.9 pounds per hour.
- (c) The metal throughput to this new Airset mold line shall not exceed 55,400 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 4,617 tons per month.
- (d) The VOC emissions from the mold making process shall be limited to 1.17 pounds per ton of sand and 22.20 pounds per hour.
- (e) The VOC content of the mold wash shall not exceed 0.0 percent by weight.
- (f) The mold production shall not exceed 166,200 tons per 12 consecutive month period and the binder usage shall not exceed 1,662 tons per 12 consecutive month period. Until 12 months of data have been collected, the mold production limit shall be 13,850 tons per month and the binder usage limit shall be 138.5 tons per month.
- (g) The VOC emissions from the thermal sand reclamation system, which controls the mold sand mixer, shall not exceed 0.013 pounds per ton of sand mixed and 0.61 pounds per hour. The Department may revise this permit to adjust the VOC limitation based upon the results of the stack test required in Condition D.8.10. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.
- (h) The thermal sand reclamation system shall control VOC emissions from the mixer and achieve a minimum of 98% destruction efficiency.
- (i) The maximum throughput rate to the shakeout process shall not exceed 15.73 tons of metal per hour.

Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) shall not apply to the mold making process. Compliance with the requirements of this condition will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.8.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting and castings cooling process shall not exceed 46.7 pounds per hour each when operating at a process weight rate of 15.73 tons of metal per hour each and 47.2 tons of sand per hour each, for a total process weight rate of 62.9 tons per hour each.
- (b) The allowable PM emission rate from the baghouse DC12 controlling the shakeout process shall not exceed 46.7 pounds per hour when operating at a process weight rate of 15.73 tons of metal per hour and 47.2 tons of sand per hour, for a total process weight rate of 62.9 tons per hour. The baghouse identified as DC12 shall be in operation at all times the shakeout process is in operation, in order to comply with this limit.

- (c) The allowable PM emission rate from the baghouse DC46 controlling the sand handling process and the thermal reclaimer shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour. The baghouse identified as DC46 shall be in operation at all times the sand handling process is in operation, in order to comply with this limit.
- (d) The allowable PM emission rate from the baghouse DC45 controlling the mechanical reclaim process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour.

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

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equations:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.8.3 PM and PM10 Emissions [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for PM and PM10, the Permittee shall comply with the following requirements:

- (a) At least 99% of all particulate matter (PM and PM-10,) emissions generated during sand handling, mechanical reclaim, and thermal reclaim operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) At least 96% of all particulate matter (PM and PM-10,) emissions generated during shakeout operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (c) The PM emissions from the baghouse DC12 controlling the shakeout operations shall be limited to a total of 0.03 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (d) The PM10 emissions from the baghouse DC12 controlling the shakeout operations shall be limited to a total of 0.022 pounds per ton of metal throughput.
- (e) At no time shall the south shakeout process be in operation at the same time when any one of the Airset shakeout units is in operation.
- (f) The PM emissions from the baghouse DC46 controlling the Airset sand handling operations and the thermal reclaimer shall be limited to 0.036 pounds per ton of sand throughput to the Airset sand handling system. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (g) The PM10 emissions from the baghouse DC46 controlling the sand handling operations and the thermal reclaimer shall be limited to 0.005 pounds per ton of sand throughput.

- (h) The sand throughput to the thermal sand reclamation system shall not exceed 24,930 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 2,078 tons per month.
- (i) The sand throughput to the sand handling system shall not exceed 166,200 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 13,850 tons per month.
- (j) The PM emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.036 pounds per ton of sand throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (k) The PM10 emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.005 pounds per ton of sand throughput.
- (l) The PM emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (m) The PM10 emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput.
- (n) The PM emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (o) The PM10 emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput.

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for PM and PM10 emissions.

D.8.4 Lead Emissions [326 IAC 2-2] [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for lead, the Permittee shall comply with the following requirements.

- (a) The combined lead emissions from the Airset pouring/casting and castings cooling operations shall be limited to 0.13 pounds per hour.
- (b) Lead emissions from the Airset mold line shall be minimized in accordance with the written certification as specified in Condition D.2.10.

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for lead emissions.

D.8.5 HAPs Emissions [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) not applicable, the metallic HAP emissions from the Airset mold line shall be minimized in accordance with the written certification as specified in Condition D.2.10.

D.8.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the baghouse DC12 controlling the shakeout operations, baghouse DC45 controlling the mechanical reclaimer, the thermal reclaimer and the baghouse DC46 controlling the thermal reclaimer, and the five bin vents controlling the six sand silos.

Compliance Determination Requirements

D.8.7 Particulate Matter Controls (PM/PM10)

In order to comply with the limits in Conditions D.8.2, D.8.3, D.8.4, and D.8.5, the following conditions shall apply:

- (a) The baghouse DC12 for particulate control shall be in operation and control emissions from the shakeout operation at all times that the shakeout process is in operation.
- (b) The baghouse DC45 for particulate control shall be in operation and control emissions from the mechanical reclaimer at all times that the mechanical reclaimer is in operation.
- (c) The baghouse DC46 for particulate control shall be in operation and control emissions from the thermal reclaimer and the sand handling system at all times that the thermal reclaimer or the sand handling system is in operation.
- (d) The bin vents for particulate control shall be in place and control emissions from each of the six sand silos at all times that sand is being transferred into or out of the silos.
- (e) All conveyors associated with the sand handling system, mechanical reclamation system, and thermal reclamation system shall be completely enclosed.
- (f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.8.8 Volatile Organic Compound (VOC) Controls

In order to comply with D.8.1(g), the thermal sand reclaimer for VOC control shall be in operation and control emissions from the sand mixer at all times that the mixing process is in operation. When operating, the thermal reclamation system shall maintain a minimum operating temperature of 1400 °F during operation or a temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM.

D.8.9 Volatile Organic Compounds (VOC) Content and Usage Limitations

Compliance with the VOC content and usage limitations contained in Conditions D.8.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the mold wash solvent manufacturer.

D.8.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the thermal sand reclaimer controlling the sand mixer, the using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(g) and (h). The test on the thermal sand reclaimer controlling the mixer shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

- (b) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the Airset pouring, cooling, and shakeout operations, using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(a) and (b). Testing shall be conducted in accordance with Section C - Performance Testing.
- (c) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform PM and PM10 testing from the facilities as shown in the table below.

Facility Identification	Control Device Identification
Airset shakeout units (both units)	baghouse DC12
Airset sand handling system and thermal reclaimer	baghouse DC46
Airset mechanical reclaimer	baghouse DC45
Airset pouring/casting operations	no controls
Airset castings cooling operations	no controls

Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.2 and D.8.3. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

- (d) Any stack which has multiple processes which exhaust to the same stack shall operate all of the processes simultaneously in accordance with 326 IAC 3-6 (Source Sampling Procedures).

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

D.8.11 Visible Emissions Notations

- (a) Visible emission notations of the baghouses DC12, DC45, and DC46 stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.8.12 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses DC12, DC45, and DC46 used in conjunction with the shakeout, sand handling, mechanical reclamation, and thermal reclamation processes, at least once per day when these processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the range of 2.0 - 8.0 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 and Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

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

D.8.13 Broken or Failed Bag Detection

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

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.8.14 Thermal Reclaimer Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal sand reclamation system for measuring the operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to 1400 degrees Fahrenheit or the temperature used to demonstrate compliance during the most recent compliance stack test, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal sand reclaimer is in operation. This pressure or amperage shall be maintained within the range specified by the manufacturer or a range as established in the most recent compliant stack test, as approved by IDEM.
- (c) The Permittee shall take the troubleshooting contingency and response steps in accordance with Section C – Response to Excursions and Exceedances when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, shall be considered a violation of this permit.

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

D.8.15 Record Keeping Requirements

- (a) To document compliance with Condition D.8.11, the Permittee shall maintain records of visible emission notations of the baghouses DC12, DC45, and DC46 stack exhausts once per day.
- (b) To document compliance with Condition D.8.12, the Permittee shall maintain once per day records of the inlet and outlet differential pressure.
- (c) To document compliance with Condition D.8.1 and D.8.3, the Permittee shall maintain records of the metal and sand throughputs to this new Airset mold line. These records shall be complete and sufficient to establish compliance with the emission limits

established in D.8.1 and D.8.3.

- (d) To document compliance with Conditions D.8.1, D.8.8, and D.8.16, the Permittee shall maintain records in accordance with (1) and (2) below.
 - (1) The continuous temperature records for the thermal reclaimer and the temperature used to demonstrate compliance during the most recent compliance stack test.
 - (2) Records of the duct pressure or fan amperage once per day.
- (e) In order to document compliance with Conditions D.8.1, the Permittee shall maintain records in accordance with (1) through (3) below.
 - (1) Copies of the Material Safety Data Sheets for each mold wash material used at the Airset mold line;
 - (2) The amount of binder usage in the Airset mold line, each month of operation; and
 - (3) The sand throughput to the thermal sand reclaimer, each month of operation.
- (f) In order to document Compliance with Condition D.8.3 (e), the Permittee shall keep records of the following:
 - (1) all times when the south shakeout is in operation and
 - (2) all times when any one of the Airset shakeout units is in operation.

D.8.16 Reporting Requirements

- (a) Quarterly summaries of the information to document compliance with Conditions D.8.1 and D.8.3 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.
- (b) The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.9

FACILITY OPERATION CONDITIONS

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

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

Insignificant activities including the following:

- (a) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
 - (1) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, and DC37.
 - (2) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.
- (d) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.
- (e) Flame wash - arc welding like torch to smooth castings after flame cutting.
- (f) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.

Mold making operations consisting of the following:

- (g) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.
- (h) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977 with a maximum capacity of 26 tons of sand per hour with emission uncontrolled.
- (i) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.

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

D.9.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of the above listed processes shall not exceed the pounds per hour limitations as calculated with the following formula:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.9.2 Particulate Matter Control

In order to comply with the requirements of Condition D.9.1, the control devices listed in this section for PM emissions control shall be in operation at all times when the associated facility is in operation.

SECTION D.10

FACILITY OPERATION CONDITIONS

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

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

One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour with emissions uncontrolled.

There are no additional rules applicable to this facility.

SECTION D.11

FACILITY OPERATION CONDITIONS

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

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

One core line, identified as "Over 500 lb Core Line", constructed in 2006, including:

- (a) one (1) phenolic urethane no bake mold making machine with a maximum capacity of 45 tons per hour;
- (b) one (1) sand mixer with a maximum capacity of 45 tons per hour;
- (c) one (1) 350-ton sand storage silo;
- (d) two (2) 100 ton sand storage silo;
- (e) one (1) sand transporter;
- (f) two (2) compaction tables; and
- (g) two (2) sand heaters

the sand silos and sand mixer are controlled by two (2) bin vents.

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

D.11.1 VOC Emissions [326 IAC 8-1-6] [326 IAC 2-2]

The following conditions shall apply to the "over 500 lb core line":

- (a) The total resin usage for the "over 500 lb core line", constructed in 2006, shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of less than 25 tons per year.
- (b) The VOC emissions from the "over 500 lb core line" shall not exceed 0.05 pounds of VOC per pound of core resin.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) do not apply.

D.11.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

The following conditions shall apply:

- (a) The PM emissions from the sand system at the "over 500 lb core line" shall not exceed 7.96 pounds per ton of sand.
- (b) The PM-10 emissions from the sand system at the "over 500 lb core line" shall not exceed 3.41 pounds per ton of sand.

Therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply.

D.11.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the dust collector and bin vents controlling the "over 500 lb core line" listed in this section.

Compliance Determination Requirements

D.11.4 Particulate Control

In order to comply with condition D.11.2, the control equipment for particulate control shall be in operation and control emissions from the sand system at the "over 500 lb core line" at all times that the sand system at the "over 500 lb core line" is in operation.

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

D.11.5 Record Keeping Requirements

- (a) In order to document compliance with Condition D.11.1, the Permittee shall maintain records of the amount of resin usage in the "over 500 lb core line", each month of operation.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.11.6 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.11.1(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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

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
- 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:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

This form consists of 2 pages

Page 1 of 2

<p>☛ This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); andC The Permittee must submit notice by mail or facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.
--

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

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

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

Page 2 of 2

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

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: Magnesium ductile treatment operation
Parameter: Metal throughput to treatment operation
Limit: 26,630 tons per 12 consecutive month period

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 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**

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
 Source Address: 900 North Mound Street, Attica, Indiana 47918
 Mailing Address: P.O. Box 60, Attica, Indiana 47918
 Part 70 Permit No.: T045-6002-00002
 Facility: North and South sand handling systems
 Parameter: sand throughput to each system
 Limit: 20,000 tons per 12 consecutive month period for the North sand system; and
 646,667 tons per 12 consecutive month period for the South sand system (which applies until
 the first day of operation of the new Airset Line)
 113,319.2 tons per 12 consecutive month period for the South sand system (which shall apply
 on and after the first day of operation of the Airset Line)

YEAR:

North Sand System

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

South Sand System

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: Pepset mold making machine
Parameter: Sand Throughput
Limit: 73,846.8 tons per 12 consecutive month period

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
 Source Address: 900 North Mound Street, Attica, Indiana 47918
 Mailing Address: P.O. Box 60, Attica, Indiana 47918
 Part 70 Permit No.: T045-6002-00002
 Facility: Airset Core Making Machine Sand Mixer (constructed in 2005)
 Parameter: VOC
 Limit: Total resin usage for the Airset core making machine sand mixer (constructed in 2005) shall be limited to less than 1,000,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month	Resin Usage Previous 11 Months	Resin Usage 12 Month Total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: "Over 500 lb Core Making Machine" (constructed in 2006)
Parameter: VOC
Limit: Total resin usage for the "Over 500 lb Core Machine" (constructed in 2006) shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month	Resin Usage Previous 11 Months	Resin Usage 12 Month Total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

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

Page 1 of 2

<p>This report is an affirmation that the source has met all the requirements stated in this permit. 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>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Harrison Steel Castings Company
Source Location:	900 North Mound Street, Attica, IN 47918
County:	Fountain
SIC Code:	3321 and 3325
Operation Permit No.:	T045-6002-00002
Operation Permit Issuance Date:	November 30, 2001
Significant Source Modification No.:	045-21035-00002
Significant Permit Modification No.:	045-21159-00002
Permit Reviewer:	Alic Bent/EVP

On September 15, 2005, the Office of Air Quality (OAQ) had a notice published in the Fountain County Neighbor, Attica, Indiana, stating that Harrison Steel Castings Company had applied for a significant source modification and significant permit modification to Part 70 permit T045-6002-00002. This notice was for the addition of a new core line to supplement the existing core production facilities and the replacement of a Shot Blast unit L3/4-NTT with a new shot blast unit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 12, 2005, OAQ received comments from Harrison Steel Castings Company on the proposed source and permit modifications. Upon further consideration, IDEM, OAQ has decided to make changes to the permit as indicated below. The summary of the comments and corresponding responses is shown below. Changes made to the permit as a result of the comments are shown in bold and deleted permit language is shown with a line through it. Any permit changes affecting the permit's Table of Contents are also revised without replication herein.

Comment 1:

Sections A.2(11) and D.11, Over 500 lb Core Line Description. We have made a few minor changes to the equipment we intend to install. The proposed changes will not impact the estimates of emissions or level of control. Please modify the descriptions in these sections to read as follows:

*One core line, identified as "Over 500 lb Core Line", constructed in 2005, including a ~~Pepset~~ **phenolic urethane no bake** mold making machine with a maximum capacity of 45 tons per hour, a sand mixer with a maximum capacity of **45 tons per hour**, ~~4,500 pounds per minute~~, ~~two (2)~~ **one (1)** 350-ton sand storage silos, ~~one (1)~~ **two (2)** ~~150~~ **100** ton sand storage silo, and ~~three (3)~~ **one (1)** sand transporters, **two (2) compaction tables**, **two (2) sand heaters**, controlled by ~~two (2)~~ **two (2)** bin vents ~~and one (1)~~ ~~5,000 cfm dust collector~~.*

Response to Comment 1:

IDEM has determined that the 5000 cfm baghouse controlling PM and PM10 emissions from the “over 500 lb core line” is not required to show compliance with Condition D.11.2. The control of the PM and PM10 emissions will be accomplished by the bin vents. Therefore, the baghouse and all conditions associated with it have been removed from Section D.11.

The “Over 500 lb Core Line” description has been changed in Sections A.2(11) and D.11 of the permit as follows:

One core line, identified as “Over 500 lb Core Line”, constructed in ~~2005~~ **2006**, including:

- (a) **one (1) a Pepset phenolic urethane no bake mold making machine with a maximum capacity of 45 tons per hour;**
- (b) **one (1) sand mixer with a maximum capacity of 45 tons per hour; ~~4,500 pounds per minute,~~**
- (c) ~~two (2)~~ **one (1) 350-ton sand storage silos;**
- (d) ~~one (1)~~ **two (2) 150 100 ton sand storage silos;**
- (e) ~~and three (3)~~ **one (1) sand transporters;**
- (f) **two (2) compaction tables; and**
- (g) **two (2) sand heaters**

the sand silos and sand mixer are controlled by two (2) bin vents and ~~one (1) 5,000 cfm dust collector.~~

Comment 2:

Condition D.11.1, VOC emissions. We request that paragraph (c) of this condition be removed. The VOC emissions from this process are a function of the amount of resin used as limited by paragraphs (a) and (b) of this condition and not the amount of sand used as limited by paragraph (c). If in the future we are able to use less resin per ton of sand, then we should be able to produce more cores (i.e. use more sand) without increasing VOC emissions above 25 tons per year.

Response to Comment 2:

IDEM, OAQ has decided that Condition D.11.1 (c) and the corresponding reporting form will be removed since the VOC emissions from the “Over 500 lb Core Line” are a function of the amount of resin used as limited by paragraphs (a) and (b) of this condition and not the amount of sand used as limited by paragraph (c). Conditions D.11.2 (a) and (b) have been re-written in terms of pounds per ton, instead of pounds per hour. Therefore, Conditions D.11.1, D.11.2, D.11.9 (now re-numbered D.11.8) and D.11.10 (now re-numbered D.11.9) have been revised.

D.11.1 VOC Emissions [326 IAC 8-1-6] [326 IAC 2-2]

The following conditions shall apply to the “over 500 lb core line”:

- (a) The total resin usage for the “over 500 lb core line”, constructed in ~~2005~~ **2006**, shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of less than 25 tons per year.
- (b) The VOC emissions from the “over 500 lb core line” shall not exceed 0.05 pounds of VOC per pound of core resin.

- ~~(c) The sand throughput to the "over 500 lb core line" shall not exceed 49,800 tons per 12 consecutive month period with compliance determined at the end of each month.~~

D.11.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

The following conditions shall apply:

- (a) The PM emissions from the sand system at the "over 500 lb core line" shall not exceed ~~1.4 pound per hour~~ **7.96 pounds per ton of sand**.
- (b) The PM-10 emissions from the sand system at the "over 500 lb core line" shall not exceed ~~0.6 pound per hour~~ **3.41 pounds per ton of sand**.

Therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply.

D.11.95 Record Keeping Requirements

- (a) In order to document compliance with Condition D.11.1, the Permittee shall maintain records ~~of the in accordance with (1) and (2) below.~~

~~(1) The amount of resin usage in the "over 500 lb core line", each month of operation; and.~~

~~(2) The sand throughput to the sand system at the "over 500 lb core line", each month of operation.~~

D.11.406 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.11.1 **(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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: ~~Harrison Steel Castings Company~~
Source Address: ~~900 North Mound Street, Attica, Indiana 47918~~
Mailing Address: ~~P.O. Box 60, Attica, Indiana 47918~~
Part 70 Permit No.: ~~T045-6002-00002~~
Facility: ~~"Over 500 lb Core Making Machine" (constructed in 2006)~~
Parameter: ~~Sand Throughput~~
Limit: ~~49,800 tons per 12 consecutive month period with compliance determined at the end of each month.~~

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

Comment 3:

Condition D.11.5, Visible Emissions Notations; D.11.6, Parametric Monitoring; D.11.7, Baghouse Inspections; D.11.8, Broken or Failed Bag Detection; and D.11.9, Recordkeeping Requirements - paragraphs (b), (c) and (d). We request that these conditions be eliminated from the permit, since we no longer plan to use a baghouse to control emissions. The control of the PM emissions will be accomplished by the bin vents. The bin vents will be exhausted at a flow rate of approximately 1,000 cfm each and as such would be considered insignificant activities.

Response to Comment 3:

IDEM agrees that the bin vents are very small, and as such would not require compliance monitoring. Therefore, the compliance monitoring requirements in Conditions D.11.5 through D.11.8, and the related recordkeeping requirements in Condition D.11.9 have been deleted.

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

~~D.11.5 Visible Emissions Notations~~

- ~~(a) Daily visible emission notations of the sand system at the "over 500 lb core line" stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~
- ~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~
- ~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~
- ~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~
- ~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. 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.~~

~~D.11.6 Parametric Monitoring~~

~~The Permittee shall record the total static pressure drop across the control equipment used in conjunction with the sand system at the "over 500 lb core line", at least once per shift when the sand system at the "over 500 lb core line" is in operation. When for any one reading, the pressure drop across the control equipment is outside the normal range of 3.0 and 6.0 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. 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, shall be considered a deviation from this permit.~~

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

D.11.7 Baghouse Inspections

~~An inspection shall be performed each calendar quarter of all bags controlling the sand system at the "over 500 lb core line". Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.11.8 Broken or Failed Bag Detection

~~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. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). 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 violation of this permit.~~
- ~~(b) For single compartment baghouses failed units and the associated process will 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).~~

D.11.95 Record Keeping Requirements

- ~~(b) To document compliance with Condition D.11.5, the Permittee shall maintain records of visible emission notations of the sand system at the "over 500 lb core line" stack exhaust once per shift.~~
- ~~(c) To document compliance with Condition D.11.6, the Permittee shall maintain records once per shift of the pressure drop during normal operation when venting to the atmosphere.~~
- ~~(d) To document compliance with Condition D.11.7, the Permittee shall maintain records of the results of the inspections required under Condition D.11.7.~~
- ~~(e) To document compliance with Condition D.11.3, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

Comment 4:

Technical Support Document. On page 3 and in Appendix A the uncontrolled potential to emit for PM from the blast unit is estimated to be 1861.5 tons per year. This is a completely unrealistic and inaccurate estimate of the uncontrolled emissions from the shot blast unit. The AP-42 emission factor for cleaning and finishing operations is 17 pounds per ton, and this is the emission factor used in IDEM's assessment. However, the AP-42 document goes on to indicate that only 0.1 pounds per ton is emitted to the atmosphere. This is an indication of the fact that the vast majority of the particles generated by cleaning and finishing operations are large and would fall out in the facility, and would not be emitted to the atmosphere. As such the estimate included in the TSD vastly overestimates the potential to emit of PM from this operation.

Response to Comment 4:

IDEM, OAQ considers AP-42 emission factors to be reliable and sufficient to provide estimates of uncontrolled emissions. The large difference between the controlled and uncontrolled emissions indicated in AP-42 is due to the high control efficiency of the control device (normally a baghouse with greater than 99% control efficiency). Any other emission factors to be considered would have to meet with source-specific IDEM, OAQ approved stack testing.

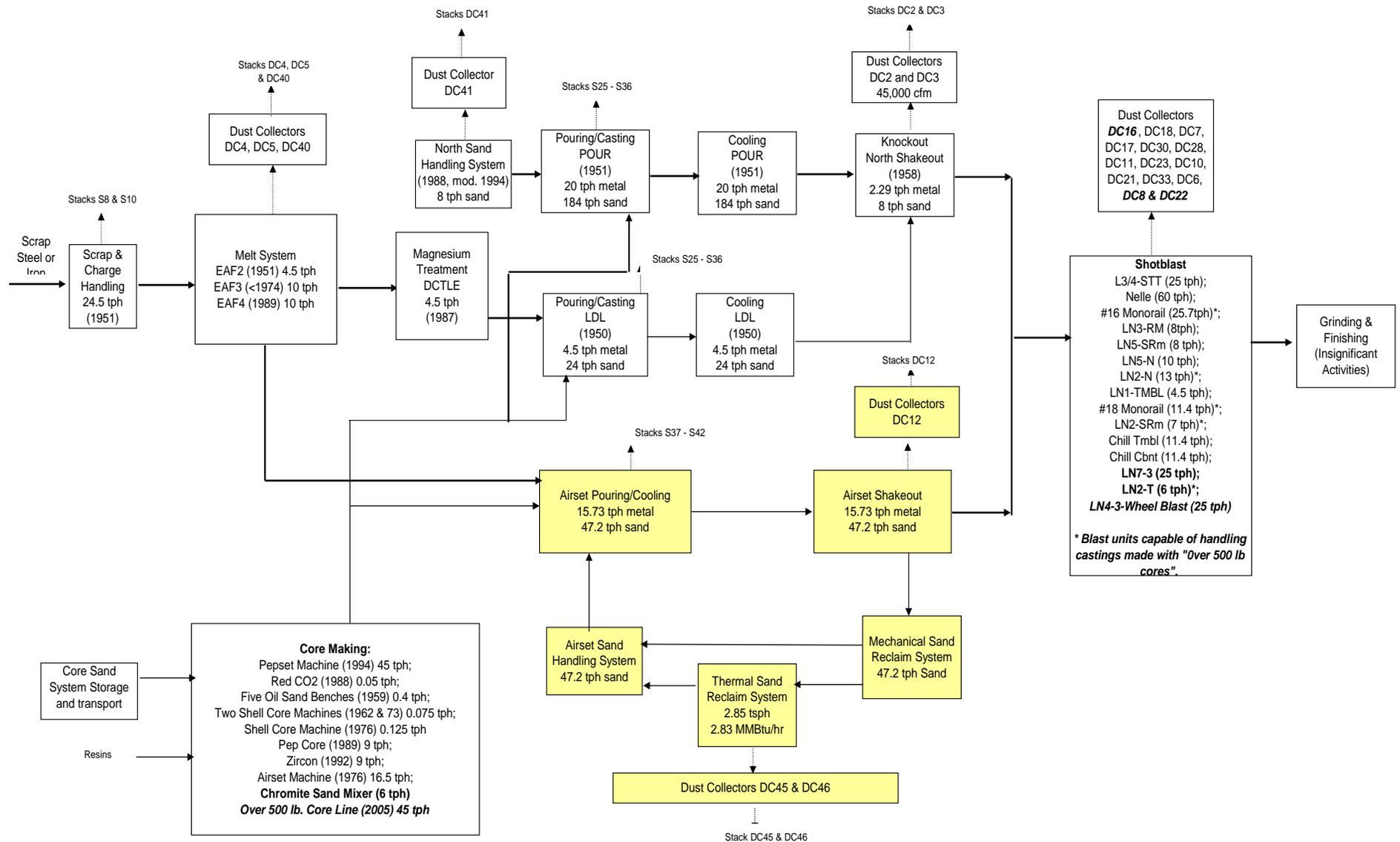
On October 12, 2005, OAQ received comments from Ethan Chatfield, Environmental Engineer of U.S. Environmental Protection Agency on the proposed source and permit modifications. The summary of the comments and corresponding responses is shown below. Changes made to the permit as a result of the comments are shown in bold and deleted permit language is shown with a line through it. Any permit changes affecting the permit's Table of Contents are also revised without replication herein.

Comment 1:

TSD page 2 of 16: Upon review it appears that this facility has received a total of 5 permit modifications in 2005, each modification below the PSD significance threshold and each modification increasing total net emissions. We are concerned that the facility may be attempting to circumvent PSD through sham permitting, please explain.

Response to Comment 1:

In order to better understand the various processes (and emission units) a flow diagram of these various processes is attached. As shown in the flow chart below, there are a number of core production facilities and shot blast units at the facility that produce only certain sizes and types of castings while the raw material (scrap steel or iron) the source is handling (24.5 tons per hour) remains the same.



None of the permit modifications for projects in 2005 were conceived or planned to provide additional capacity to produce castings that the source does not already make. Equipment for core production and shot blasting that existed (and still exists) at the plant can handle any of the castings they currently make or expect to make. The rationale for the individual projects was as follows:

1. In December 2003 a purchase order was issued for a new shot blast unit (LN7-3) because of failure to an existing shot blast unit (LN6-TT) was imminent. Harrison Steel needed to replace the failing unit or risk an extended shutdown of the unit. The unit was replaced in February 2004. Harrison Steel applied for a permit for this unit in July of 2004, proposing to accept limits below the PSD major modification thresholds for PM and PM-10.
2. In June 2004, Harrison Steel purchased a separate shot blast unit, and applied for a permit to install the unit in September 2004. This unit is identified as LN2-T. The decision to purchase was based on the availability of the unit at an auction. It is a relatively small unit and they were able to purchase it at a much lower cost than the cost of a new unit. The unit affords Harrison the ability to move production to this unit as other units wear out. The permit for the two (2) shot blast units (LN7-3 and LN2-T) was issued in March 2005. The PM and PM-10 emissions from the two (2) shot blast units combined (LN7-3 and LN2-T) were limited to less than the PSD major modification thresholds.
3. In December 2004, Harrison Steel submitted an application to the OAQ requesting to add a 2nd core sand mixer to be used in conjunction with the existing Airset core production process. The need for this equipment arose from Harrison's concern over the continued availability of zircon sand, and the mixer gave them the redundant capability to mix chromite sand separately to ensure that they could continue to operate the core production process at the current production levels. The new mixer did not increase the capacity of the overall line, which is governed by the core machine itself, but rather provided redundant mixing capacity. The limits in the permit restricted VOC emissions to less than 25 tons/year such that the requirements of 326 IAC 8-1-6 do not apply. The permit for this mixer was issued in August 2005.
4. In March 2005, Harrison Steel submitted an application to the OAQ requesting to add a new core line referred to as the "over 500 lb core line" to supplement the existing core production facilities and to replace Shot Blast unit L3/4-NTT with a new shot blast unit LN4-3. The purchase of the shot blast unit was a business decision based on the availability of used equipment at an attractive price. Harrison Steel plans to use this unit to replace other units in the blasting operation. The purchase of the new core line was based on the relatively high labor level required to make the same cores on the existing core line. As such the new core line is redundant with the existing core production, but large cores can be made with less labor. The proposed permit limits include VOC, PM and PM-10 limits for these two projects combined which ensure that the PSD major modification thresholds will not be exceeded. The permit for the "over 500 lb core line" and new shot blast unit LN4-3 is still pending.

IDEM believes the various projects described above were not attempts by Harrison Steel to circumvent PSD requirements for the following reasons:

- The LN7-3 shot blast (application submitted in July 2004) was a replacement for the LN6-TT blast unit due to the imminent failure of this blast operation. This blast unit is used for smaller parts and cannot be used for parts made from cores produced on the "Over 500 lb Core Line".
- The LN2-T shot blast (application submitted in September 2004) was purchased at an auction, and the decision to purchase was not based on a particular need, but on the opportunity to purchase additional equipment at a good price. The LN2-T is for larger castings such as may be made using cores from the Over 500 lb Core line. However, this is not why the unit was purchased or installed because several other existing units can be and are used for larger parts including the #16 Monorail, #18 Monorail, LN2-N, and LN2-S. The addition of this unit was not required to increase blast capacity, but was merely a prudent business decision. It was clearly not associated with the purchase of the replacement unit (LN7-3) or the emission units purchased subsequently.

- The Chromite sand mixer application was submitted in December of 2004. The mixer provides alternate (not additional) mixing capacity when a different type of sand is required. This alternate mixer, as well as the existing mixer, is used to mix sand and as such are not associated with any specific size or type of product or related to any particular shot blast unit or core production method. This project had no relationship to the previous permit requests for the shot blast units, as it involved different circumstances, entire different parts of the production process and even different pollutants.
- The LN4-3 shot blast (application submitted in March 2005 with the application for the Over 500 lb Core Line) was also purchased at auction due to the price of the unit. This unit is used for smaller castings and cannot be used for castings made from cores produced on the "Over 500 lb Core Line".

The Over 500 lb Core Line will also be used for alternate rather than added capacity, and not to make a part or product not already produced at the facility. They currently make large cores on the existing process, but it is more labor intensive due to the need to manually handle the cores. The new core line will enable Harrison Steel to make the same cores currently produced on existing equipment with less labor than currently required.

The decision to purchase these pieces of equipment were entirely separate from the other purchases described above and these represent processes independent of one another.

IDEM believes that Harrison have appropriately applied for all of these permits. All of these projects involve either replacing existing emission units or providing redundancy of operation for processes that are already restricted in capacity. None of these projects are related to an overall increase in production and in all cases the existing processes could have accommodated the level of production anticipated by these new pieces of equipment.

Comment 2:

Section D.5 and D.11: Since the facility is proposing synthetic minor emission limits that appear to be close to the PSD significant thresholds, it is suggested that stack testing be required on the new emission units to verify that the emission limits, in conjunction with the associated production limits specified in D.5.2, D.11.1, and D.11.2, do not exceed these thresholds.

Response to Comment 2:

With respect to the proposed new shot blast unit, testing for PM and PM₁₀ is feasible. However, IDEM believes that this unit, which has a controlled PTE of 1.75 lb/hr (using baghouse with 99% efficiency) and a limit of 2.7 lb/hr is a relatively small unit and the proposed emission limits are not particularly stringent for this size unit. As such IDEM has determined that testing is not required.

Testing of the over 500 lb core machine would pose a number of practical problems. The core machine used for the Phenolic Urethane No Bake (PUNB) core process used in this core machine is very different than the Polyurethane Cold Box (PUCB) process that is more common in the industry. Both processes use a two-part resin system. However, the PUNB process uses a liquid catalyst added to the mix, whereas the PUCB process blows an amine gas through the core matrix, followed by purge air. Therefore the PUCB process has an exhaust gas stream (from the TEA and purge air) that has a vent that can be tested. The PUNB process does not have an exhaust air stream that can be tested easily. Emissions from the PUNB process are from the evaporation of the organic constituents in the core resins. In order to test the emission rates, the source would have to construct an enclosure around the process and exhaust the enclosure through a vent that could be sampled.

The PUNB process used at the Harrison Steel Castings facility uses a TECHNISET[®] resin system manufactured by HA International. The source has provided a copy of a test report from the Casting Emission Reduction Program (CERP) conducted at the Technikon, LLC facility in Sacramento. The test report includes data from testing on a PUNB mold using the TECHNISET[®] resin. The testing was conducted by placing the mold flask in a temporary enclosure and testing the exhaust from the enclosure for VOCs (using EPA method 25A) and for specific organic compounds. Testing was conducted for individual molds and six replicate tests were conducted. Test results include emissions from the mixing, making and curing as well as core storage after the cores are produced. IDEM determines that this test is representative of the process in that the same resin system is used, and the resin content of the core process tested was even higher than the resin content of Harrison's cores. (CERP used 1.3% resin and Harrison's cores have 1.0 % resin).

The test results showed 0.0069 lbs VOC per lb of binder from the mixing, making and curing of the cores. This is much lower than the proposed emission limit of 0.05 lbs per lb of resin. The testing also showed core storage emissions of 0.0118 lbs/ton cores, which when combined with the mixing, making and curing values is still well below the proposed limit of 0.05 lbs/lb resin. It appears that this testing provides adequate support for the conclusion that the proposed VOC limit of 0.05 lbs/lb of resin is very conservative. Given this available data and the difficulties associated with similar testing, IDEM does not believe it is necessary to require testing of the process in this permit.

Upon further review IDEM, OAQ has made the following changes to the Part 70 permit (additions in bold, deletions in ~~strikeout~~):

1. This permit incorporates Sections B, C and D changes that were made to the Part 70 permit through Third Significant Permit Modification 045-21549-00002, issued December 30, 2005.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Harrison Steel Castings Company
Source Location:	900 North Mound Street, Attica, IN 47918
County:	Fountain
SIC Code:	3321 and 3325
Operation Permit No.:	T045-6002-00002
Operation Permit Issuance Date:	November 30, 2001
Significant Source Modification No.:	045-21035-00002
Significant Permit Modification No.:	045-21159-00002
Permit Reviewer:	Alic Bent/EVP

The Office of Air Quality (OAQ) has reviewed a modification application from Harrison Steel Castings Company relating to revisions to their steel and ductile iron castings permit as follows:

History

On March 28, 2005, Harrison Steel Castings Company submitted an application to the OAQ requesting to add a new core line to supplement the existing core production facilities and to replace Shot Blast unit L3/4-NTT with a new shot blast unit. The proposed core line will be better suited to make larger cores, which are currently being made on existing equipment. The potential to emit VOCs from the new core line will be greater than 25 tons per year. The source is proposing to limit total resin usage to less than 996,000 pounds of resin per year, which will result in a limited potential to emit of less than 25 tons of VOC per year. The potential to emit PM and PM-10 from the proposed modification will be greater than 25 and 15 tons per year, respectively. The source is proposing to limit total PM and PM-10 emissions to less than 25 and 15 tons per year, respectively, for the core line sand system and the shot blast unit. The Permittee has indicated that no change will be made for other existing units and has stated in the application for this approval that this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. Therefore, this modification will not result in debottlenecking or increased utilization of other existing units.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

- (a) One core line, identified as "Over 500 lb Core Line", to be installed in 2005, including a Pepset mold making machine with a maximum capacity of 45 tons per hour, a sand mixer with a maximum capacity of 1,500 pounds per minute, two (2) 350-ton sand storage silos, one (1) 150-ton sand storage silo, and three (3) sand transporters, controlled by two (2) bin vents and one (1) 5,000 cfm dust collector.
- (b) One (1) blast machine, identified as LN4-3 Wheel Blast, to be constructed in 2005, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.

Existing Approvals

The source was issued a Part 70 Operating Permit T045-6002-00002 on November 30, 2001. The source has since received the following:

- (a) First Significant Source Modification No.: 045-12788, issued on June 13, 2001;
- (b) First Minor Permit Modification No.: 045-15172, issued on April 23, 2002;
- (c) First Minor Source Modification No.: 045-20502, issued on February 25, 2005;
- (d) Second Significant Source Modification No.: 045-19746, issued on March 15, 2005;
- (e) First Significant Permit Modification No.: 045-20240-00002, issued on May 13, 2005;
- (f) Second Significant Permit Modification No.: 045-20409-00002, issued on August 24, 2005.

Pending Approvals

Permit No.	Project Description	Status
3 rd SSM 045-20845-00002 and 3 rd SPM 045-19744-00002	Revisions to the PM and PM10 limits on the Airset line, the VOC emission limits for the thermal reclaim system which controls the mold sand mixer, the throughput limits and the emission limits established for the north and south sand systems and the re-analysis of BACT for the Airset line pouring and cooling, and shakeout processes.	Not been to public notice
4 th SSM 045-21035-00002 and 4 th SPM 045-21159-00002	The addition of a new core line to supplement the existing core production facilities and the replacement of a Shot Blast unit L3/4-NTT with a new shot blast unit LN4-3 Wheel Blast. The regulated pollutants emitted from these processes are PM, PM10 and VOC.	Proposed

The units being modified in the two (2) pending permits (3rd SSM and 3rd SPM) are not related to the units being modified in the proposed Significant Source Modification (SSM) No.: 045-21035-00002 and Significant Permit Modification (SPM) No.: 045-21159-00002. The actual PTE (based on future actual emissions minus the average actual emissions for the past two years) will not be increased for 3rd SSM and 3rd SPM. Therefore, IDEM has determined that the units being permitted through the two (2) pending permits (3rd SSM and 3rd SPM) and the proposed SSM/SPM can be treated as separate projects and don't have to be combined for permit review.

Enforcement Issue

The source has an enforcement action pending for noncompliance with their BACT limits.

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 28, 2005.

Emission Calculations

See Appendix A: pages 1 of 2 of this document for detailed emissions calculations.

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

Pollutant	Potential To Emit (tons/year)
PM	1951.14
PM-10	199.6
SO ₂	--
VOC	197.10
CO	--
NO _x	--

Justification for Modification

The Title V permit is being modified through a Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) because it is a modification for which the potential to emit PM/PM-10 and VOC is greater than twenty-five(25) tons per year. The Significant Source Modification will be incorporated into the permit through a Significant Permit Modification because new limitations and standards are required to be added to the existing Title V permit.

County Attainment Status

The source is located in Fountain County.

Pollutant	Status
PM2.5	Attainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

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

- (b) Fountain County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions.
- (c) Fountain County has been classified as attainment or unclassifiable in Indiana for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	Greater than 100
PM-10	Greater than 100
SO ₂	Less than 100
VOC	Greater than 100
CO	Less than 100
NOx	Less than 100

- (a) This existing source is a major PSD stationary source because at least one attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories, specifically a secondary metal production facility.
- (b) These emissions are based upon the technical support document for the Significant Source Modification No.: 045-12788-00002.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Over 500 lb Core Machine	--	--	--	24.9	--	--	--
New Core Line Sand System	6.13	2.63	--	--	--	--	--
One (1) blast machine (LN4-3)	18.61	11.83	--	--	--	--	--
Total for this modification	24.74	14.46	--	24.9	--	--	--
PSD Significance Level	25	15	40	40	100	40	--

The Permittee has stated in the application for this approval that this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) incorporated into this permit.
- (b) The National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20, (40 CFR Part 63.7680, Subpart EEEEE (Iron and Steel Foundries) applies to each new or existing iron and steel foundry that is a major source of HAP emissions. The rule covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines that use a sand mold system, automated shakeout lines that use a sand mold system, and mold and core making lines. The final rule also covers fugitive emissions from foundry operations.

This source is an existing steel and ductile iron castings foundry that is a major source of HAP emissions. Pursuant to this rule, as an existing affected source the Permittee must comply with 40 CFR 63, Subpart EEEEE on and after April 22, 2007. Since this rule has a future compliance date, the specific details of the rule and how the permittee will demonstrate compliance are not provided in the permit. The Permittee shall submit an application for a significant permit modification at least nine months prior to the April 22, 2007 compliance date that will specify the option or options for the emission limitations and standards and methods for determining compliance chosen by the Permittee. At that time, the Department will include the specific details of the rule and how the Permittee will demonstrate compliance. In addition, pursuant to 40 CFR 63, Subpart EEEEE, the Permittee shall submit the requisite notifications and reports pursuant to Subpart EEEEE and 40 CFR 63, Subpart A, and such are contained in the permit.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This existing source is a major stationary source because it is one of the 28 listed source categories (i.e. secondary metal production) under 326 IAC 2-2, and potential volatile organic compound (VOC) and particulate matter (PM & PM-10) emissions are greater than 100 tons per year. For this modification the source has requested that PM, PM-10 and VOC emissions be limited to less than 40, 25 and 15 tons per year, respectively, as follows:

- (a) The PM emissions from the sand system at the "over 500 lb core line" shall not exceed 1.4 pounds per hour, which is equivalent to total PM emissions of 6.13 tons per year.
- (b) The PM-10 emissions from the sand system at the "over 500 lb core line" shall not exceed 0.6 pounds per hour, which is equivalent to total PM-10 emissions of 2.63 tons per year.
- (c) The PM emissions from the blast machine LN4-3 shall not exceed 4.25 pounds per hour, which is equivalent to total PM emissions of 18.61 tons per year.
- (d) The PM-10 emissions from the blast machine LN4-3 shall not exceed 2.7 pounds per hour, which is equivalent to total PM-10 emissions of 11.83 tons per year.
- (e) The total resin usage for the "over 500 lb core line" shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of less than 25 tons per year.
- (f) The VOC emissions from the "over 500 lb core line" shall not exceed 0.05 pounds of VOC per pound of core resin.
- (g) The sand throughput to the "over 500 lb core line" shall not exceed 49,800 tons per 12 consecutive month period with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

326 IAC 2-6 (Emission Reporting)

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

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (BACT)

VOC emissions from the "over 500 lb core machine", constructed in 2005, shall be limited to less than 25 tons per year as follows:

- (a) The total resin usage for the "over 500 lb core machine", constructed in 2005, shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month.
- (b) The VOC emissions from the "over 500 lb core machine", constructed in 2005, shall not exceed 0.05 pound per pound of resin.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. The usage requirements shall also make the requirements of 326 IAC 2-2 (PSD) not applicable.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The particulate from the blast machine identified as LN4-3 wheel blast, shall be limited by the following:

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

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

$$E = 4.10 (25)^{0.67} \\ = 35.4 \text{ pounds per hour}$$

The baghouse shall be in operation at all times the blast machine identified as LN4-3 wheel blast is in operation, in order to comply with this limit.

Compliance Requirements

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

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

The compliance monitoring requirements applicable to this modification are as follows:

1. The sand system at the "over 500 lb core line" has applicable compliance monitoring conditions as specified below:
 - (a) Once per shift visible emission notations of the sand system at the "over 500 lb core line" stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
 - (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
 - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. 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.
- (f) The Permittee shall record the total static pressure drop across the control equipment used in conjunction with the sand system at the "over 500 lb core line", at least once per shift when the sand system at the "over 500 lb core line" is in operation. When for any one reading, the pressure drop across the control equipment is outside the normal range of 3.0 and 6.0 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. 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, shall be considered a deviation from this permit.

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

- (g) An inspection shall be performed each calendar quarter of all bags controlling the sand system at the "over 500 lb core line". Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.
- (h) In the event that bag failure has been observed.
 - (i) 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 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.

- (ii) For single compartment baghouses, 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 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).

These monitoring conditions are necessary because the control equipment for the sand system at the "over 500 lb core line" must operate properly to ensure compliance with 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70).

Changes Proposed

The changes listed below have been made to the Part 70 Operating Permit T045-6002-00002 to incorporate the new core line identified as the "over 500 lb core line" and the new blast machine identified as LN4-3 wheel blast. Language that has been deleted has been shown with a line through it and language that has been added is shown in bold.

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

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

- (5) (a) ~~Two (2)~~ **One (1)** twin table blast machines, identified as ~~L3/4 - NTT~~ and L3/4 - STT, both constructed in 1961 ~~each~~ with a maximum capacity of 25 tons of steel per hour with emissions from ~~L3/4 - NTT controlled by baghouse DC16~~ and emissions from L3/4 - STT controlled by baghouse DC18.
- (b) **One (1) blast machine, identified as LN4-3 Wheel Blast, constructed in 2005, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.**
- (11) **One core line, identified as "Over 500 lb Core Line", constructed in 2005, including a Pepset mold making machine with a maximum capacity of 45 tons per hour, a sand mixer with a maximum capacity of 1,500 pounds per minute, two (2) 350-ton sand storage silos, one (1) 150-ton sand storage silo, and three (3) sand transporters, controlled by two (2) bin vents and one (1) 5,000 cfm dust collector.**

SECTION D.5

FACILITY OPERATION CONDITIONS

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

The shot blasting operations consisting of the following:

- (a) ~~Two (2)~~ **One (1)** twin table blast machines, identified as ~~L3/4 - NTT~~ and L3/4 - STT, both constructed in 1961 ~~each~~ with a maximum capacity of 25 tons of steel per hour with emissions from ~~L3/4 - NTT controlled by baghouse DC16~~ and emissions from L3/4 - STT controlled by baghouse DC18.
- (b) **One (1) blast machine, identified as LN4-3 Wheel Blast, constructed in 2005, with a maximum capacity of 25 tons of steel per hour with emissions controlled by baghouse DC16.**

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from ~~each of the baghouses DC16 and DC18~~ controlling the shotblast machines identified as the twin table shotblast machines ~~L3/4-NTT and L3/4-S TT~~, shall not exceed 35.4 pounds per hour ~~each~~ when operating at a process weight rate of 25 tons of metal castings per hour ~~each~~.
- (b) **The allowable PM emission rate from baghouse DC16 controlling the blast machine identified as LN4-3 Wheel Blast, shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour.**

D.5.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ not applicable, the following conditions shall apply:

- (i) **The PM emissions from the baghouse DC16 controlling the LN4-3 Wheel Blast machine shall not exceed 4.25 pounds per hour.**
- (j) **The PM10 emissions from the baghouse DC16 controlling the LN4-3 shot blast machine shall not exceed 2.70 pounds per hour.**

Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ shall not apply.

D.5.4 Particulate Matter

In order to comply with the requirements of Conditions D.5.1 and D.5.2, the following conditions shall apply:

- (a) The baghouse, DC16, for PM and PM10 control shall be in operation at all times when the ~~L3/4-NTT shot~~ **LN4-3 wheel** blast machine is in operation.

SECTION D.11 FACILITY OPERATION CONDITIONS

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

One core line, identified as "Over 500 lb Core Line", constructed in 2005, including a Pepset mold making machine with a maximum capacity of 45 tons per hour, a sand mixer with a maximum capacity of 1,500 pounds per minute, two (2) 350-ton sand storage silos, one (1) 150-ton sand storage silo, and three (3) sand transporters, controlled by two (2) bin vents and one (1) 5,000 cfm dust collector.

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

D.11.1 VOC Emissions [326 IAC 8-1-6] [326 IAC 2-2]

The following conditions shall apply to the "over 500 lb core line":

- (a) The total resin usage for the "over 500 lb core line", constructed in 2005, shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of less than 25 tons per year.
- (b) The VOC emissions from the "over 500 lb core line" shall not exceed 0.05 pounds of VOC per pound of core resin.

- (c) The sand throughput to the “over 500 lb core line” shall not exceed 49,800 tons per 12 consecutive month period with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) do not apply.

D.11.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

The following conditions shall apply:

- (a) The PM emissions from the sand system at the “over 500 lb core line” shall not exceed 1.4 pound per hour.
- (b) The PM-10 emissions from the sand system at the “over 500 lb core line” shall not exceed 0.6 pound per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply.

D.11.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the dust collector and bin vents controlling the “over 500 lb core line” listed in this section.

Compliance Determination Requirements

D.11.4 Particulate Matter

In order to comply with condition D.11.2, the control equipment for particulate control shall be in operation and control emissions from the sand system at the “over 500 lb core line” at all times that the sand system at the “over 500 lb core line” is in operation.

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

D.11.5 Visible Emissions Notations

- (a) Once per shift visible emission notations of the sand system at the “over 500 lb core line” stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. 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.

D.11.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the control equipment used in conjunction with the sand system at the “over 500 lb core line”, at least once per shift when the sand system at the “over 500 lb core line” is in operation. When for any one reading, the pressure drop across the control equipment is outside the normal range of 3.0 and 6.0 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. 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, shall be considered a deviation from this permit.

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

D.11.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the sand system at the “over 500 lb core line”. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.11.8 Broken or Failed Bag Detection

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, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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) For single compartment baghouses, 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 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).

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

D.11.9 Record Keeping Requirements

- (a) In order to document compliance with Condition D.11.1, the Permittee shall maintain records in accordance with (1) and (2) below.

- (1) **The amount of resin usage in the “over 500 lb core line”, each month of operation; and**
 - (2) **The sand throughput to the sand system at the “over 500 lb core line”, each month of operation.**
- (b) **To document compliance with Condition D.11.5, the Permittee shall maintain records of visible emission notations of the sand system at the “over 500 lb core line” stack exhaust once per shift.**
- (c) **To document compliance with Condition D.11.6, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation when venting to the atmosphere.**
- (d) **To document compliance with Condition D.11.7, the Permittee shall maintain records of the results of the inspections required under Condition D.11.7.**
- (e) **To document compliance with Condition D.11.3, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.**
- (f) **All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

D.11.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.11.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Co.
Source Address: 900 N. Mound St., Attica, IN 47918
Mailing Address: 900 N. Mound St., P.O. Box 60, Attica, IN 47918
Part 70 Permit No.: T045-6002-00002
Facility: "Over 500 lb Core Making Machine" (constructed in 2005)
Parameter: VOC
Limit: Total resin usage for the "Over 500 lb Core Machine" (constructed in 2005) shall be limited to less than 996,000 pounds of resin per 12 consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month	Resin Usage Previous 11 Months	Resin Usage 12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: "Over 500 lb Core Making Machine" (constructed in 2005)
Parameter: Sand Throughput
Limit: 49,800 tons per 12 consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☛ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

Conclusion

The operation of this steel and ductile iron castings plant shall be subject to the conditions of the attached proposed Significant Source Modification No. 045-21035-00002 and Significant Permit Modification No. 045-21159-00002.

**Appendix A: Emission Calculations
Over 500 lb Core Line**

Company Name: Harrison Steel Castings Co.
Address City IN Zip: 900 N. Mound St., Attica, IN 47918
Permit Number: SSM045-21035-00002
 SPM045-21159-00002
Reviewer: AB/EVP

VOC Emissions

Machine	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Potential VOC Emissions
Over 500 lb Core Machine	45	1.0%	1	197.1

Limit to render 326 IAC 8-1-6 (BACT) not applicable

Machine	Core Production (tons cores/yr)	Resin Usage Limit (lb/yr)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	VOC Emission Factor for Resin Evaporation (lb VOC/lb resin)	VOC Limit (ton/yr)
Over 500 lb Core Machine	49,800	996,000	1	0.05	24.9

Methodology

Emission factors are from testing performed from phenolic urethane resin systems that showed an emission rate of 0.65 lbs/ton of cores at 1% resin content. A conservative emission factor of 1.0 lb/ton of cores at 1% resin content has been used. This equates 0.05 lbs VOC per lb resin. Uncontrolled VOC emissions (tons/yr) = Capacity (tons/hr) * emission factor (lbs VOC/ton core) * 8760 hr/yr * ton/2000 lb

PM/PM10 Emissions

Machine	Sand throughput (ton/yr)	PM EF (lb/ton sand)	PM10 EF (lb/ton sand)	Uncontrolled PTE PM (ton/yr)	Uncontrolled PTE PM10 (ton/yr)
Over 500 lb Core Machine	49,800	3.6	0.54	89.64	13.45

Machine	Uncontrolled PTE PM (ton/yr)	Uncontrolled PTE PM10 (ton/yr)	Baghouse Efficiency (%)	Controlled PTE PM (ton/yr)	Controlled PTE PM10 (ton/yr)
Over 500 lb Core Machine	89.64	13.45	99%	0.90	0.13

Methodology

Emission factors are from FIRE, Version 5.0 for Grinding/Handling operations (SCC 30400350)
 The maximum sand throughput is equal to the limited throughput on the core machine.

Appendix A: Process Particulate Emissions

Company Name: Harrison Steel Castings Co.
Address City IN Zip: 900 N. Mound St., Attica, IN 47918
Permit No.: SSM045-21035-00002
 SPM045-21159-00002
Reviewer: AB/EVP

Uncontrolled Potential Emissions (tons/year)			
Process	Maximum Capacity (tons/hr)	Emission Factor (lb/ton)	Total Emissions (tons/yr)
LN4-3 Wheel Blast	25	1.7	186.15
Total Emissions Based on Rated Capacity at 8,760 Hours/Year			186.15
Controlled Potential Emissions (tons/year)			
A. Baghouses			
Process	Grain Loading per Actual Cubic Foot of Outlet Air	Baghouse Air Flow Rate (cfm)	Total (tons/yr)
LN4-3 Wheel Blast	0.01000	20,000	7.51
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source control:			7.51

Methodology:Potential (uncontrolled):

Emission factor from Fire Version 6.23 (SCC 3-04-007-11)

Uncontrolled Emissions (tons/yr) = Maximum Capacity * Emission Factor (lb/ton) * 8760 hr/yr * 1 ton/2,000 lbs

Potential (controlled):

Baghouse (tons/yr) = No. Units * Loading (grains/cf) * Air Flow Rate (cfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs