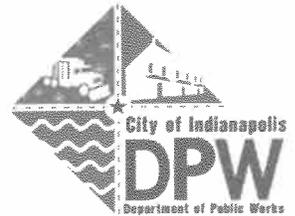


DATE: December 19, 2008

TO: Interested Parties / Applicant

RE: Interstate Castings / MPR097-27070-00063

FROM: Richard Wise *RJ Wise*  
Administrator  
Office of Environmental Services



## 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 501, Indianapolis, IN 46204, **within fifteen (15) days of the receipt 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.

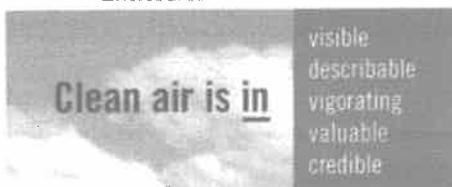
Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity 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.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works  
Office of Environmental Services

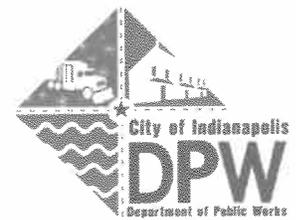
2700 Belmont Avenue  
Indianapolis, IN 46221

317-327-2234

Fax 327-2274

TDD 327-5186

indygov.org/dpw



December 19, 2008

Becky Meyer  
Interstate Castings  
3823 Massachusetts Avenue  
Indianapolis, Indiana 46218

CERTIFIED MAIL 7008 0150 0003 5219 4834

Re: MPR097-27070-00063  
First Minor Revision to  
F097-18317-00063

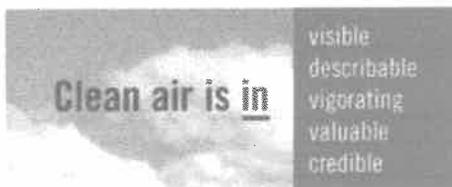
Dear Ms. Meyer:

Interstate Castings was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F097-18317-00063 on April 16, 2007 for a stationary gray and ductile iron castings manufacturing plant located at 3823 Massachusetts Avenue, Indianapolis, Indiana 46218. A First Administrative Amendment, AA097-25719-00063, was issued on January 14, 2008.

On October 3, 2008, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) received an application from Interstate Castings requesting to delete future stack testing frequency requirements, to adjust existing HAP limits while continuing to remain a minor HAP source, and to add a sand reclamation system that has the potential to emit PM and PM10 in excess of twenty five (25) tons per year. On November 26, 2008, Interstate Castings submitted additional information to replace the B&P auto mold machine, which is included in emission unit EU-06C sand handling operations, with a like kind replacement. The application has been assigned the application tracking number MPR097-27070-00063. The following is the new sand reclamation system emission unit and pollution control device:

- (g) One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.

The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Minor Permit Revision (MPR) procedures of 326 IAC 2-8-11.1(e). Pursuant to the provisions of 326 IAC 2-8-11.1, a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).



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Department of Public Works  
Office of Environmental Services

2700 Belmont Avenue  
Indianapolis, IN 46221

317-327-2234  
Fax 327-2274  
TDD 327-5186  
[indygov.org/dpw](http://indygov.org/dpw)

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

Sincerely,

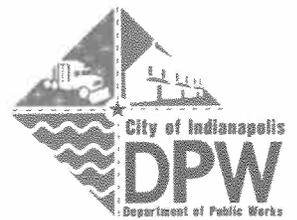


Richard Wise  
Administrator  
City of Indianapolis  
Office of Environmental Services

Attachments: Technical Support Document and revised FESOP

ic

cc: OES - Compliance  
IDEM, OAQ Compliance  
USEPA - R5  
Marion County Health Dept.  
IDEM, Mindy Hahn



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

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

**Interstate Castings  
3823 Massachusetts Avenue  
Indianapolis, Indiana 46218**

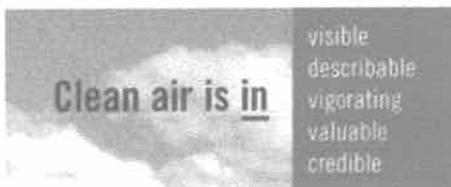
(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application. 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.**

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Operation Permit No.: F097-18317-00063	
Issued by: Original Signed by Felicia A. Robinson Felicia A. Robinson, Administrator Office of Environmental Services	Issuance Date: April 16, 2007  Expiration Date: April 16, 2017
First Administrative Amendment 097-25719-00063, issued on January 14, 2008	
First Minor Permit Revision 097-27070-00063	Conditions affected: entire permit
Issued by:  Richard Wise Administrator City of Indianapolis Office of Environmental Services	Issuance Date: 12/19/08  Expiration Date: April 16, 2017



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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 2-8-3(b)]**

---

The Permittee owns and operates a stationary Gray & Ductile Iron Foundry.

Source Address:	3823 Massachusetts Ave. Indianapolis, Indiana 46218
Mailing Address:	3823 Massachusetts Ave. Indianapolis, Indiana 46218
General Source Phone:	317-546-2427
SIC Code:	3321
County Location:	Marion County
Source Location Status:	Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rule, Emission Offset, and Nonattainment NSR Minor Source, section 112 of the Clean Air Act 1 of 28 source categories

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

---

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

- (a) Melt Operations, installed in 1972, consisting of the following:
  - (1) Two (2) electric induction furnaces, collectively identified as EU-01, with emissions collected by a canopy hood located directly over the furnaces and controlled by a settling tank followed by a cyclone which exhausts through one stack identified as stack B. Only one furnace can be operated at any time because there is only one transformer to supply electrical energy;
  - (2) One (1) charge handling system, identified as EU-02, with a maximum charge capacity of 5 tons of metal per hour. The maximum capacity of the charge handling system is limited by the source's ability to melt metal;
  - (3) One (1) natural gas preheater, identified as EU-03, with a maximum heat input capacity of 25 million Btu per hour; and
  - (4) One (1) reaction/holding ladle, identified as EU-04, where inoculation takes place.

Emissions from the charge handling system, preheater, and holding ladle are collected by the general furnace area ventilation system that exhausts through two uncontrolled stacks identified as stacks V11 and V12.

- (b) Pouring and Cooling Operations, collectively identified as EU-05, where the molten metal from the melting operation are poured from ladles into molds and allowed to cool. These facilities were installed in the 1930s and have a maximum throughput of 5 tons of metal per hour. Emissions are collected by hoods located on the ceiling above the pouring deck and exhaust through uncontrolled stacks V17, V18, V26, V27, and V28.
- (c) Shakeout Operations, collectively identified as EU-06A, where the molding sand is separated from the casting by mechanical shaking. These units were installed in 1972 and have a maximum throughput of 5 tons of metal per hour. Emissions are collected by

hoods located over the shakeout area and controlled by a cyclone, identified as CE-C, in series with a dust collector, identified as CE-A; exhausting through stack A.

- (d) Casting Cleaning Operations, collectively identified as EU-06B, with a maximum throughput of 5 tons of metal per hour, consisting of the following:

- (1) One (1) table blast installed in 1981;
- (2) One (1) shot blast machine installed in June 1960;
- (3) Five (5) grinders installed in 1960; and
- (4) One (1) cutoff saw installed in 1981.

Emissions are collected by various hoods located throughout the casting cleaning operation and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

- (e) Sand Handling Operations, collectively identified as EU-06C, installed prior to 1967 and modified in 1998 and in 2000, with a maximum capacity of 20.63 tons of sand per hour, consisting of the following:

- (1) One (1) sand muller;
- (2) Thirteen (13) hopper stations;
- (3) One (1) sand elevator;
- (4) One (1) sand tank;
- (5) One (1) sand cooler;
- (6) Seven (7) belts;
- (7) One (1) molding line consisting of a B & P 16 X 20 mold machine, approved to construct in 2008, with a maximum production capacity of 80 molds per hour, each mold weighing 140 pounds; and
- (8) One (1) molding line consisting of a Sinto FB03 20 X 24 mold machine, constructed in 1998, with a maximum production capacity of 80 molds per hour, each mold weighing 240 pounds.

Emissions are collected by various hoods located throughout the sand handling process line and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

- (f) Core Making Operations consisting of the following three (3) core making processes:

- (1) Two (2) Redford shell core machines identified as EU-09A and EU-09B, each with a maximum capacity 35.75 pounds of shell sand per hour and constructed in February 2002;
- (2) One (1) air set core making process, identified as EU-07, constructed in 1982, with a maximum operating capacity of 0.5 tons of cores per hour. In the air set core making process, sand, catalyst, and resin are blended together in a sand mixer. Following blending, the blended sand is placed in the core boxes. Cores are then formed into the desired shape in the core machine. If required, the cores are placed in the core oven in order to harden the cores. The air set core oven is fired with natural gas and has a maximum heat input capacity of 0.115 million Btu per hour; and

- (3) One (1) oil sand core making process, identified as EU-08, constructed in 1958, with a maximum operating capacity of 0.05 tons of cores per hour. In the oil core making process, sand and core oil are blended together in a sand mixer and placed in core molds to produce the desired shape. If required, the oil cores are then baked in a core oven in order to harden and strengthen the cores. The oil sand core oven is fired with natural gas and has a maximum heat input capacity of 1.6 million Btu per hour.

Emissions are collected by building ventilation hoods located in the core making area and exhaust through uncontrolled stacks V4, V5, and V38.

- (g) One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.

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

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

- (a) Old Conference Room Boiler, with a heat input capacity of 0.106 MMBtu/hr. [326 IAC 6.5-1-2(b)(3)]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.5-1]
- (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) Woodworking operation consisting of one (1) bandsaw and one (1) oscillating vertical sand. The emissions from this operation are controlled by a dust collector with a design flow rate of 55 cubic feet per minute. [326 IAC 6.5-1]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (e) Space heaters, process heaters, or boilers using the following fuels.
- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (A) Core Oven, with a heat input capacity of 1.6 MMBtu/hr.
- (B) Maintenance West Space Heater, with a heat input capacity of 0.225 MMBtu/hr.
- (C) Maintenance East Space Heater, with a heat input capacity of 0.225 MMBtu/hr.
- (D) Chipping Booth Space Heater, with a heat input capacity of 0.2 MMBtu/hr.
- (E) Old Dock Space Heater, with a heat input capacity of 0.4 MMBtu/hr.
- (F) Maintenance Shower Room Furnace, with a heat input capacity of 0.125 MMBtu/hr.
- (G) Airset Oven, with a heat input capacity of 0.115 MMBtu/hr.
- (H) Airset Torpedo, with a heat input capacity of 0.4 MMBtu/hr.
- (I) Airset Torpedo, with a heat input capacity of 0.4 MMBtu/hr.
- (J) Bull Ladle Torch -2", with a heat input capacity of 0.279 MMBtu/hr.
- (K) Control Room Furnace, with a heat input capacity of 0.125 MMBtu/hr.

- (L) Core Dip Drying Table Infra-red, with a heat input capacity of 0.048 MMBtu/hr.
- (M) Ladle Torch 2" Floor Molding, with a heat input capacity of 0.279 MMBtu/hr.
- (N) Ladle Torch 2" Floor Molding, with a heat input capacity of 0.279 MMBtu/hr.
- (O) Ladle Torch 2" Floor Molding, with a heat input capacity of 0.279 MMBtu/hr.
- (P) Bull Ladle Torch -2", with a heat input capacity of 0.279 MMBtu/hr.
- (Q) Heavy Chip Torpedo, with a heat input capacity of 0.4 MMBtu/hr.
- (R) Shipping Office North Infra-red, with a heat input capacity of 0.014 MMBtu/hr.
- (S) Shipping Office South Infra-red, with a heat input capacity of 0.014 MMBtu/hr.
- (T) Core Assembly Table Heater, with a heat input capacity of 0.014 MMBtu/hr.
- (U) Muller Trash Chute Torch, with a heat input capacity of 0.005 MMBtu/hr.
- (V) Muller Gearbox Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (W) Muller Manifold Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (X) Compressor Water Manifold Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (Y) Air-set room space heater, with a heat input capacity of 0.15 MMBtu/hr.
- (Z) Air-set room Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (AA) Air-set room Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (BB) Air-set conveyor Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (CC) Air-set conveyor Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (DD) Air-set conveyor Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (EE) Core Room Core Prep Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (FF) Bench Core Table Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (GG) Bench Core Table Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (HH) Core Assembly Table Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (II) Air-set Core & Mold assembly Table Infrared, with a heat input capacity of 0.024 MMBtu/hr.
- (JJ) Air-set Core & Mold assembly Table Infrared, with a heat input capacity of 0.024 MMBtu/hr.
- (KK) Air-set Mold Assembly Infrared, with a heat input capacity of 0.024 MMBtu/hr.
- (LL) Air-set Mold Assembly Infrared, with a heat input capacity of 0.024 MMBtu/hr.
- (MM) Sinto Infrared (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (NN) Sinto Infrared (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (OO) #9 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (PP) #9 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (QQ) Molding Line Setup Table Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (RR) #8 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (SS) #8 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (TT) #7 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (UU) #7 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.

- (VV) #6 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (WW) #6 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (XX) #5 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (YY) #5 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (ZZ) #4 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (AAA) #4 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (BBB) #3 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (CCC) #3 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (DDD) #1 Molding Machine Infra-red (basement), with a heat input capacity of 0.024 MMBtu/hr.
- (EEE) #1 Molding Machine Infra-red (overhead), with a heat input capacity of 0.024 MMBtu/hr.
- (FFF) Ladle Prep Area Sink Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (GGG) #2 Stand Grinder Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (HHH) #1 Stand Grinder Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (III) Brinell Tester Infrared, with a heat input capacity of 0.024 MMBtu/hr.
- (JJJ) Single Pedestal Dual Wheel Grinder Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (KKK) Floor Molding Rollaround Triple Unit Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (LLL) Floor Molding North Station Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (MMM) Floor Molding South Station Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (NNN) Floor Molding Water Barell Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
- (OOO) Floor Molding Simpson Muller Infra-red, with a heat input capacity of 0.024 MMBtu/hr.
  
- (2) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
  - (A) Payloader, 61 HP
  - (B) Hand Torch unit for mold drying, 0.3 MMBtu/hr
  
- (3) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
  - (A) Dayton Salamader, 0.6 MMBtu/hr
  - (B) Dayton Salamader, 0.055 MMBtu/hr
  
- (f) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
  
- (g) Combustion source flame safety purging on startup.

- (h) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (i) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (j) Closed loop heating and cooling systems.
- (k) Infrared cure equipment.
- (l) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.
- (m) Replacement or repair of electrostatic precipitators bags in baghouses and filters in other air filtration equipment.
- (n) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

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

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

**SECTION B GENERAL CONDITIONS**

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

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

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- (a) This permit, F097-18317-00063, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

**B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

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

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

**B.5 Severability [326 IAC 2-8-4(4)]**

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

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

**B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 when furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.8 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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

**B.9 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.10 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.11 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

B.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Indianapolis Office of Environmental Services, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Telephone No.: 317-233-0178 (ask for Compliance Section)

Facsimile No.: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
  - (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
  - (g) 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 material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to F097-18317-00063 and issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised,
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.14 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emissions trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades [326 IAC 2-8-15(c)]**  
The Permittee may trade emission increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(d)]**  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.20 Source Modification Requirement [326 IAC 2-8-11.1]**

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

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
  
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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

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

**C.1 Overall Source Limit [326 IAC 2-8]**

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

- (a) Pursuant to 326 IAC 2-8:
  - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.
  - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
  - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) The potential to emit particulate matter from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

**C.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 thirty percent (30%) 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.

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

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

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

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

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

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 5, 2006. The plan is included as Attachment A.

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

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control

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

- (f) Demolition and renovation  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

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

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

**C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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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 the equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require the certification by an "authorization individual" as defined by 326 IAC 2-1.1-1(1).

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

**C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

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

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

**C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on September 7, 1988.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

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

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## **Stratospheric Ozone Protection**

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

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

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

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

- (a) Melt Operations, installed in 1972, consisting of the following:
- (1) Two (2) electric induction furnaces, collectively identified as EU-01, with emissions collected by a canopy hood located directly over the furnaces and controlled by a settling tank followed by a cyclone which exhausts through one stack identified as stack B. Only one furnace can be operated at any time because there is only one transformer to supply electrical energy;
  - (2) One (1) charge handling system, identified as EU-02, with a maximum charge capacity of 5 tons of metal per hour. The maximum capacity of the charge handling system is limited by the source's ability to melt metal;
  - (3) One (1) natural gas preheater, identified as EU-03, with a maximum heat input capacity of 25 million Btu per hour; and
  - (4) One (1) reaction/holding ladle, identified as EU-04, where inoculation takes place.

Emissions from the charge handling system, preheater, and holding ladle are collected by the general furnace area ventilation system that exhausts through two uncontrolled stacks identified as stacks V11 and V12.

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

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

**D.1.1 Particulate Matter (PM) [326 IAC 6.5-1-2(e)(2)]**

Pursuant to 326 IAC 6.5-1-2(e)(2), the PM emissions from the melt operations (EU-01, EU-02, EU-03, and EU-04) shall not exceed 0.07 grains per dry standard cubic foot of exhaust gas. For the purposes of demonstrating stack compliance with 326 IAC 6.5-1-2(e)(2) only the filterable fraction of PM shall be counted.

**D.1.2 Particulate Matter (PM10) [326 IAC 2-8-4] [326 IAC 2-2]**

Pursuant to 326 IAC 2-8-4, the PM10 emissions from the melt operations are limited as follows:

- (a) The throughput of metal to the two (2) electric induction furnaces (EU-01), charge handling (EU-02), and the reaction/holding ladle (EU-04) shall each be limited to less than 20,000 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The combined PM10 emissions from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall not exceed 0.64 lbs PM10/ton metal. For the purposes of demonstrating compliance with this condition the filterable and condensable fractions of PM10 shall be counted.
- (c) The combined PM10 emissions from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall not exceed 3.24 lbs PM10/ton metal. For the purposes of demonstrating compliance with this condition the filterable and condensable fractions of PM10 shall be counted.

Combined with the PM10 emissions from other emission units, the PM10 emissions from the entire source are limited to less than 100 tons per year. Therefore, compliance with this Condition and Conditions D.2.2, D.3.2, and D.4.1 makes the Part 70 Operating Permit requirements (326 IAC 2-7) and 326 IAC 2-2 (PSD) not applicable.

**D.1.3 PSD Minor Source Limit [326 IAC 2-2]**

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- (a) The throughput of metal to the two (2) electric induction furnaces (EU-01), charge handling (EU-02), and the reaction/holding ladle (EU-04) shall each be limited to less than 20,000 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The PM emissions from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall be limited to 0.67 lbs PM/ton Metal.
- (c) The PM emissions from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall be limited to 2.40 lbs PM/ton Metal.

Compliance with this Condition and Condition D.2.3, and in combination with PM emissions from other emission units, renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration not applicable.

**D.1.4 Metallic HAP Minor Limit**

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- (a) Emissions of manganese from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall not exceed 0.207 ton per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) Emission of any combination of metal HAPs from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall not exceed 2.40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (c) Emissions of manganese from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall not exceed 0.744 ton per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (d) Emission of any combination of metal HAPs from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall not exceed 1.01 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

A summary of these limits is included in the following table:

Emission Unit	Pollutant	Emission Limit (tons/yr)
electric induction furnaces (stack B)	Manganese	0.207
	Total Metal HAPs	2.40
charge handling and reaction/holding ladle (stacks V11 and V12)	Manganese	0.744
	Total Metal HAPs	1.01

Compliance with the emission limits in paragraph (a) and (c) above in conjunction with the other Manganese limits included in this permit limit source-wide Manganese emissions to less than 10 tons per year. Compliance with the limits in paragraph (b) and (d) above in conjunction with the other combined HAP limits included in this permit limit source-wide emissions of any combination of HAPs to less than 25 tons per year.

**D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) electric induction furnaces and the associated Settling Tank and Cyclone.

**Compliance Determination Requirements**

#### D.1.6 Particulate Matter (PM)

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In order to demonstrate compliance with Conditions D.1.1, D.1.2(b), D.1.3(b), and the HAP emission limits in Conditions D.1.4(a) and (b), the Settling Tank and Cyclone used for PM, PM10 and HAP control shall be in operation and control emissions from the two (2) electronic induction furnaces at all times that these induction furnaces are in operation.

#### D.1.7 Testing Requirements [326 IAC 2-8-4(3)]

---

- (a) Within twelve (12) months after the issuance of this permit and in order to demonstrate compliance with Condition D.1.2 and D.1.3, the Permittee shall perform PM/PM10 testing on one (1) of the two (2) identical electric induction furnaces and the charge handling system, identified as EU-02 utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 shall include filterable and condensable PM10. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.
- (b) Within twelve (12) months after issuance of this permit and in order to demonstrate compliance with Condition D.1.4, the Permittee shall perform manganese testing on one (1) of the two (2) identical electric induction furnaces utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

#### D.1.8 Metallic HAP Emissions Compliance Determinations

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Compliance with the HAP limits in Condition D.1.4 shall be demonstrated using the following equations:

- (a) Manganese Emissions from the two (2) electric induction furnaces (tons/yr) =  $EF_{FMn}$  (lb/ton) x  $M_F$  (tons per twelve (12) consecutive month period) x (1 ton / 2000 pounds)

Where:

$EF_{FMn}$  = 0.0207 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_F$  = total metal throughput to the two (2) electric induction furnaces (tons per twelve (12) consecutive month period)

- (b) Manganese Emissions from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes (tons/yr) =  $EF_{CHMn}$  (lb/ton) x  $M_{CH}$  (tons per twelve (12) consecutive month period) x (1 ton / 2000 pounds)

Where:

$EF_{CHMn}$  = 0.0744 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{CH}$  = total metal throughput to the charge handling (EU-02) and reaction/holding ladle (EU-04) processes (tons per twelve (12) consecutive month period)

- (c) Total Metal HAP Emissions from the two (2) electric induction furnaces (tons/yr) =  $EF_{FTM}$  (lb/ton) x  $M_F$  (tons per twelve (12) consecutive month period) x (1 ton / 2000 pounds)

Where:

$EF_{FTM}$  = 0.24 pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_F$  = total metal throughput to two (2) electric induction furnaces (tons per twelve (12) consecutive month period)

- (d) Total Metal HAP Emissions from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes (tons/yr) =  $EF_{CHTM}$  (lb/ton) x  $M_{CH}$  (tons per twelve (12) consecutive month period) x (1 ton / 2000 pounds)

Where:

$EF_{CHTM} = 0.101$  pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{CH}$  = total metal throughput to the charge handling (EU-02) and reaction/holding ladle (EU-04) processes (tons per twelve (12) consecutive month period)

- (e) Upon IDEM approval of manganese compliance stack test results on one (1) of the two (2) electric induction furnaces, the following shall apply:
- (1) The manganese emission factors in pound per ton obtained from the IDEM approved stack test results shall be used for the variable identified above as  $EF_{FMn}$ .
  - (2) The total metal HAP emission factor in pound per ton that shall be used for the variable  $EF_{FTM}$  shall be the sum of the manganese emission factor obtained from the stack test and the remaining non-manganese metal HAP emission factors used to calculate emissions.

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

#### **D.1.9 Visible Emissions Notations**

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- (a) Visible emission notations of stacks B, V11 and V12 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

#### **D.1.10 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall maintain monthly records of the tons of metal to the two (2) electric induction furnaces (EU-01), charge handling (EU-02), and the reaction/holding ladle (EU-04).
- (b) To document compliance with condition D.1.4, the Permittee shall maintain records of the following:
  - (1) HAP stack test results for one (1) of the two (2) electric induction furnaces;
  - (2) HAP emission calculations performed using the equations in condition D.1.8; and
  - (3) HAP emissions in tons per year.
- (c) To document compliance with Condition D.1.9, the Permittee shall maintain daily records of visible emission notations for stack B, V11, and V12 exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).

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

#### D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2, D.1.3, and D.1.4 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**SECTION D.2**

**FACILITY OPERATION CONDITIONS**

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

- (b) Pouring and Cooling Operations, collectively identified as EU-05, where the molten metal from the melting operation are poured from ladles into molds and allowed to cool. These facilities were installed in the 1930s and have a maximum throughput of 5 tons of metal per hour. Emissions are collected by hoods located on the ceiling above the pouring deck and exhaust through uncontrolled stacks V17, V18, V26, V27, and V28.
- (c) Shakeout Operations, collectively identified as EU-06A, where the molding sand is separated from the casting by mechanical shaking. These units were installed in 1972 and have a maximum throughput of 5 tons of metal per hour. Emissions are collected by hoods located over the shakeout area and controlled by a cyclone, identified as CE-C, in series with a dust collector, identified as CE-A; exhausting through stack A.
- (d) Casting Cleaning Operations, collectively identified as EU-06B, with a maximum throughput of 5 tons of metal per hour, consisting of the following:
  - (1) One (1) table blast installed in 1981;
  - (2) One (1) shot blast machine installed in June 1960;
  - (3) Five (5) grinders installed in 1960; and
  - (4) One (1) cutoff saw installed in 1981.

Emissions are collected by various hoods located throughout the casting cleaning operation and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

- (e) Sand Handling Operations, collectively identified as EU-06C, installed prior to 1967 and modified in 1998 and in 2002, with a maximum capacity of 20.63 tons of sand per hour, consisting of the following:
  - (1) One (1) sand muller;
  - (2) Thirteen (13) hopper stations;
  - (3) One (1) sand elevator;
  - (4) One (1) sand tank;
  - (5) One (1) sand cooler;
  - (6) Seven (7) belts;
  - (7) One (1) molding line consisting of a B & P 16 X 20 mold machine, approved to construct in 2008, with a maximum production capacity of 80 molds per hour, each mold weighing 140 pounds; and
  - (8) One (1) molding line consisting of a Sinto FB03 20 X 24 mold machine, constructed in 1998, with a maximum production capacity of 80 molds per hour, each mold weighing 240 pounds.

Emissions are collected by various hoods located throughout the sand handling process line and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

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

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

#### **D.2.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]**

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Pursuant to 326 IAC 6.5-1-2(a), PM emissions from casting pouring and cooling operations, collectively identified as EU-05, and the sand handling, casting cleaning, and shakeout operations (EU-06A, EU-06B, and EU-06C) shall each not exceed 0.03 grains per dry standard cubic foot of exhaust gas. For the purposes of demonstrating compliance with 326 IAC 6.5-1-2(e)(2) only the filterable fraction of PM shall be counted.

#### **D.2.2 Particulate Matter (PM10) and Carbon Monoxide (CO) [326 IAC 2-8-4] [326 IAC 2-2]**

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Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following emission limits:

- (a) The throughput of metal to the pouring and cooling operations (EU-05) and the shakeout and shot blast operations (EU-06A and EU-06B) shall each be limited to less than 20,000 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The PM10 emissions from the pouring and cooling operations (EU-05) exhausting through stacks V17, V18, V26, V27, and V28 shall not exceed 3.09 lbs PM10/ton Metal. For the purposes of demonstrating compliance with this condition the filterable and condensable fractions of PM10 shall be counted.
- (c) The combined CO emissions from the pouring and cooling operations (EU-05) exhausting through stacks V17, V18, V26, V27, and V28 and the shakeout operations (EU-06A) exhausting through stack A shall not exceed 6.0 lbs CO/ton Metal.
- (d) The combined PM10 emissions from the shakeout, casting cleaning, and sand handling operations (EU-06A, EU-06B, and EU-06C) exhausting through stack A shall not exceed 0.30 lbs/hr. For the purposes of demonstrating compliance with this condition the filterable and condensable fractions of PM10 shall be counted.

Combined within the PM10, and CO emissions from other emission units, the PM10 and CO emissions from the entire source are limited to less than 100 tons per year. Therefore, compliance with this Condition and Conditions D.1.2, D.3.2, and D.4.1 makes the Part 70 Operating Permit requirements (326 IAC 2-7) and 326 IAC 2-2 (PSD), not applicable.

#### **D.2.3 PSD Minor Source Limit [326 IAC 2-2]**

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- (a) The PM emissions from the pouring and cooling operations (EU-05) shall be limited to 4.20 lbs PM/ton Metal.
- (b) The PM emissions from the shakeout, casting cleaning, and sand handling operations (EU-06A, EU-06B, and EU-06C) shall be limited to 1.19 lbs/hr.

Compliance with this Condition and Condition D.1.3 renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration not applicable.

#### **D.2.4 Metallic HAP Minor Limit**

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- (a) Total emissions of manganese from the pouring and cooling operations (EU-05) shall not exceed 1.30 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;
- (b) Total emissions of any combination of metal HAPs from the pouring and cooling operations (EU-05) shall not exceed 1.77 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (c) Total emissions of manganese from the shakeout and shot blast operations (EU-06A and EU-06B) shall not exceed 0.0626 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

- (d) Total emissions of any combination of metal HAPs from the shakeout and shot blast operations (EU-06A and EU-06B) shall not exceed 2.39 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

A summary of these limits is included in the following table:

Emission Unit	Pollutant	Emission Limit (tons/yr)
pouring and cooling operations	Manganese	1.30
	Total Metal HAPs	1.77
shakeout and shot blast operations	Manganese	0.0626
	Total Metal HAPs	2.39

Compliance with the emission limit in paragraphs (a) and (c) above in conjunction with the other manganese limits included in this permit, limit source-wide manganese emissions to less than 10 tons per year. Compliance with the limit in paragraphs (b) and (d) above in conjunction with the other combined HAP limits included in this permit limit source-wide emissions of any combination of HAPs to less than 25 tons per year.

#### D.2.5 Organic HAP Minor Limit

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Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed 1.21 pounds of combined organic HAP per ton of metal melted and 12.1 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Compliance with the limit in conjunction with the other combined HAP limits included in this permit limit source-wide emissions of any combination of HAPs to less than 25 tons per year.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the shakeout, casting cleaning, and sand handling operations, including the associated cyclone identified as CE-C and the baghouse identified as CE-A.

### Compliance Determination Requirements

#### D.2.7 Particulate Matter (PM)

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- (a) In order to demonstrate compliance with Conditions D.2.1, D.2.2, D.2.3, and D.2.4 the cyclone identified as CE-C and the Baghouse identified as CE-A, shall be in operation and control emissions from the sand handling, casting cleaning, and shakeout operations at all times that these units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse or cyclone failure is observed, 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.2.8 Testing Requirements [326 IAC 2-8-4(3)]

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Within one hundred and eighty (180) days after the issuance of this permit and in order to demonstrate compliance with Conditions D.2.1, D.2.2, D.2.3, and D.2.4 the Permittee shall perform PM, PM10, and Manganese testing on the shakeout, casting cleaning, and sand handling operations (EU-06A, EU-06B, and EU-06C) using methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 shall include filterable and condensable PM10. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

D.2.9 HAP Emissions Compliance Demonstrations

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(a) Compliance with the metal HAP limits in Condition D.2.4 shall be demonstrated using the following equations:

(1) Manganese Emissions from the pouring and cooling operations (tons/yr) =  
 $(EF_{PCMn} \times M_{PC}) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{PCMn}$  = 0.1302 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{PC}$  = total metal throughput to the pouring and cooling operations (tons per twelve (12) consecutive month period)

(2) Total Metal HAP Emissions from the pouring and cooling operations (tons/yr) =  
 $(EF_{PCTM} \times M_{PC}) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{PCTM}$  = 0.177 pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{PC}$  = total metal throughput to the pouring and cooling operations (tons per twelve (12) consecutive month period)

(3) Manganese Emissions from the shakeout and shot blast operations (tons/yr) =  
 $(EF_{SMn} \times M_S) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{SMn}$  = 0.00626 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_S$  = total metal throughput to the shakeout and shot blast operations (tons per twelve (12) consecutive month period)

(4) Total Metal HAP Emissions from the shakeout and shot blast operations (tons/yr) =  
 $(EF_{STM} \times M_S) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{STM}$  = 0.239 pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_S$  = total metal throughput to the shakeout and shot blast operations (tons per twelve (12) consecutive month period)

(5) Upon IDEM approval of total metallic HAP compliance stack test results on pouring and cooling operations, the manganese and total metallic HAP emission factors in pound per ton obtained from the IDEM approved stack test results shall be used for the variables identified above as  $EF_{PCMn}$  and  $EF_{PCTM}$ .

(b) Compliance with the organic HAP limit in Condition D.2.5 shall be demonstrated using the following equation:

Total Organic HAP Emissions from the pouring and cooling operations and the shakeout operations (tons/yr) = 1.21 pounds of organic HAP per ton of metal melted x tons of metal melted x (1 ton / 2000 pounds)

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

**D.2.10 Visible Emissions Notations**

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- (a) Visible emission notations of stacks V17, V18, V26, V27, V28, and stack A shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or 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.2.11 Parametric Monitoring**

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The Permittee shall record the pressure drop across the baghouse, identified as CE-A, used in conjunction with the shakeout, casting cleaning, and sand handling processes, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.5 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or 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.

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 OES, and shall be calibrated at least once every six (6) months.

**D.2.12 Broken or Failed Bag Detection**

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

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

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

**D.2.13 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall maintain monthly records of the tons of metal to the pouring and cooling operations (EU-05) and the shakeout and shot blast operations (EU-06A and EU-06B).
- (b) To document compliance with Condition D.2.4, the Permittee shall maintain records of the following:
  - (1) Metallic HAP stack test results for the pouring and cooling operations (EU-05) and the shakeout and shot blast operations (EU-06A and EU-06B) as applicable;
  - (2) Metallic HAP emission calculations performed using the equations in Condition D.2.9(a); and
  - (3) Metallic HAP emissions in tons per year.
- (c) To document compliance with Condition D.2.5, the Permittee shall maintain records of the following:
  - (1) Organic HAP stack test results for the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) as applicable;
  - (2) Organic HAP emission calculations performed using the equation in Condition D.2.9(b); and
  - (3) Organic HAP emissions in tons per year.
- (d) To document compliance with Condition D.2.10, the Permittee shall maintain daily records of visible emission notations of stacks V17, V18, V26, V27, V28, and stack A exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (e) To document compliance with Condition D.2.11, the Permittee shall maintain daily records of the pressure drop across the baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.2.14 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.2.2, D.2.3, D.2.4, and D.2.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**SECTION D.3**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]**

- (f) Core Making Operations consisting of the following three (3) core making processes:
- (1) Two (2) Redford shell core machines identified as EU-09A and EU-09B, each with a maximum capacity 35.75 pounds of shell sand per hour and constructed in February 2002;
  - (2) One (1) air set core making process, identified as EU-07, constructed in 1982, with a maximum operating capacity of 0.5 tons of cores per hour. In the air set core making process, sand, catalyst, and resin are blended together in a sand mixer. Following blending, the blended sand is placed in the core boxes. Cores are then formed into the desired shape in the core machine. If required, the cores are placed in the core oven in order to harden the cores. The air set core oven is fired with natural gas and has a maximum heat input capacity of 0.115 million Btu per hour; and
  - (3) One (1) oil sand core making process, identified as EU-08, constructed in 1958, with a maximum operating capacity of 0.05 tons of cores per hour. In the oil core making process, sand and core oil are blended together in a sand mixer and placed in core molds to produce the desired shape. If required, the oil cores are then baked in a core oven in order to harden and strengthen the cores. The oil sand core oven is fired with natural gas and has a maximum heat input capacity of 1.6 million Btu per hour.

Emissions are collected by building ventilation hoods located in the core making area and exhaust through uncontrolled stacks V4, V5, and V38.

- (g) One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.

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

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

**D.3.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]**

Pursuant to 326 IAC 6.5-1-2(a), the PM emissions from the core making operations and the airset mechanical sand reclamation unit (EU-07, EU-08, EU-9A, EU-9B and EU-10) shall each not exceed 0.03 grains per dry standard cubic foot of exhaust gas. For the purposes of demonstrating compliance with 326 IAC 6.5-1-2(a) only the filterable fraction of PM shall be counted.

**D.3.2 FESOP Limit [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-1.1-5]**

Pursuant to 326 IAC 2-8-4 (FESOP), the Permittee shall comply with the following for EU-10 and the sand usage and emission limits for the core making operations:

- (a) The amount of sand at the air set core making process (EU-07) shall be limited to less than 4,500 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The amount of sand at the oil sand core making process (EU-08) shall be limited to less than 730 tons per twelve consecutive month period with compliance determined at the end of each month.

- (c) The amount of shell sand at the Redford shell core making processes (EU-09A and EU-09B) shall be limited to less than 120 tons per twelve consecutive month period with compliance determined at the end of each month.
- (d) The PM10 emissions from the air set core making process, oil sand core making process, and the Redford shell core making processes (EU-07, EU-08, EU-09A, and EU-09B) shall each not exceed 0.81 lbs PM10/ton sand.
- (e) The potential to emit PM10 and PM2.5 from the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, shall not exceed 0.01 grains per dry standard cubic foot of exhaust air and shall not exceed 0.86 pounds per hour.

Combined with the PM10 emissions and PM2.5 emissions from other emission units, the PM10 emissions and PM2.5 emissions from the entire source are each limited to less than 100 tons per year. Therefore, compliance with this Condition and Conditions D.1.2, D.2.2, and D.4.1 makes the Part 70 Operating Permit requirements (326 IAC 2-7) Prevention of Significant Deterioration (PSD) (326 IAC 2-2), and Nonattainment NSR (326 IAC 2-1.1-5) not applicable.

#### D.3.3 PSD Minor Source Limit [326 IAC 2-2]

- (a) The amount of sand used in the air set core making process (EU-07) shall be limited to less than 4,500 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The amount of sand used in the oil sand core making process (EU-08) shall be limited to less than 730 tons per twelve consecutive month period with compliance determined at the end of each month.
- (c) The amount of shell sand used in the Redford shell core making processes (EU-09A and EU-09B) shall be limited to less than 120 tons per twelve consecutive month period with compliance determined at the end of each month.
- (d) The PM emissions from the air set, core oil, and Redford shell core making operations (EU-07, EU-08, EU-09A, and EU-09B) shall be limited to 3.6 lbs PM/ton sand.
- (e) The potential to emit PM from the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, shall not exceed 0.01 grains per dry standard cubic foot of exhaust air and shall not exceed 0.86 pounds per hour.

Compliance with these limitations renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration not applicable.

#### D.3.4 Organic HAP Minor Limit

- (a) Emissions of any combination of organic HAPs from the air set core making process (EU-07) shall not exceed 0.133 pounds per ton of sand.
- (b) Emissions of any combination of organic HAPs from the Redford shell core making processes (EU-09A and EU-09B) shall not exceed 0.191 pounds per ton of sand.
- (c) The oil sand core making process (EU-08) shall not emit any combination of organic HAPs.

Compliance with these limits and the throughput limits in D.3.3(a) and (c), in conjunction with the other combined HAP limits included in this permit limit source-wide emissions of any combination of HAPs to less than 25 tons per year.

## Compliance Determination Requirements

### D.3.5 Particulate Matter (PM)

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- (a) In order to demonstrate compliance with Conditions D.3.2 and D.3.3, the cartridge filter identified as CE-D, shall be in operation and control emissions from the airset mechanical sand reclamation unit, identified as emission unit EU-10 at all times that EU-10 is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse or cyclone failure is observed, 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 2-8-4] [326 IAC 2-8-5(a)(1)]

### D.3.6 Visible Emissions Notations

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- (a) Visible emission notations of stacks V4, V5, V38 and D shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or 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

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The Permittee shall record the pressure drop across the cartridge filter, identified as CE-D, used in conjunction with the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, at least once per day when the process is in operation. When for any one reading, the pressure drop across the cartridge filter is outside the normal range of 1.0 and 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 or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances.

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.3.8 Broken or Failed Bag Detection

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

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

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

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

### **D.3.9 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.3.2, D.3.3, and D.3.4, the Permittee shall maintain monthly records of the tons of sand used in each core making process.
- (b) To document compliance with Condition D.3.6, the Permittee shall maintain daily records of visible emission notations of stacks V4, V5, V38 and D exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (c) To document compliance with Condition D.3.7, the Permittee shall maintain daily records of the pressure drop across the baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.3.10 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.3.2, D.3.3, and D.3.4 shall be submitted to the addresses listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

**SECTION D.4**

**FACILITY OPERATION CONDITIONS**

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

- (a) Old Conference Room Boiler, with a heat input capacity of 0.106 MMBtu/hr. [326 IAC 6.5-1-2(b)(3)]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.5-1]
- (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) Woodworking operation consisting of one (1) bandsaw and one (1) oscillating vertical sand. The emissions from this operation are controlled by a dust collector with a design flow rate of 55 cubic feet per minute. [326 IAC 6.5-1]

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

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

**D.4.1 FESOP PM10 Limit [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-1.1-5]**

Pursuant to 326 IAC 2-8-4 (FESOP), the PM10 emissions from the woodworking operation shall not exceed 0.14 pounds per hour. Combined with the PM10 emissions from other emission units, the PM10 emissions from the entire source are limited to less than 100 tons per year. Therefore, compliance with this Condition and Conditions D.1.2, D.2.2, D.3.2, and D.4.2 makes the Part 70 Operating Permit requirements (326 IAC 2-7), 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (Nonattainment NSR), and 326 IAC 2-4.1 (MACT) not applicable.

**D.4.2 Particulate Matter (PM) [326 IAC 6.5-1]**

- (a) Pursuant to 326 IAC 6.5-1-2(a), the PM emissions from the woodworking, and welding and brazing operations shall not exceed 0.03 grains per dry standard cubic foot of exhaust gas. For the purposes of demonstrating compliance with 326 IAC 6.5-1-2(a) only the filterable fraction of PM shall be counted.
- (b) Pursuant to 326 IAC 6.5-1-2(b)(3), the PM emissions from the old conference room boiler shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas. For purposes of demonstrating compliance with 326 IAC 6.5-1-2(b)(3) only the filterable fraction of PM shall be counted.

**Compliance Determination Requirements**

**D.4.3 Particulate Matter (PM)**

In order to demonstrate compliance with Condition D.4.1(a), the dust collector shall be in operation and control emissions from the woodworking operation at all times that the woodworking equipment are in operation.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

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

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063

**This form consists of 2 pages**

**Page 1 of 2**

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

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

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

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

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

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

**FESOP Quarterly Report**

Source Name: Interstate Castings  
 Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 FESOP No.: F097-18317-00063  
 Facility: Two (2) Induction Furnaces (EU-01), charge handling (EU-02), and the reaction/holding ladle (EU-04) processes  
 Parameter: Metal throughput  
 Limit: The throughput of metal to the two (2) electric induction furnaces (EU-01), charge handling (EU-02), and the reaction/holding ladle (EU-04) processes per twelve consecutive month period shall each be limited to less than 20,000 tons with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Metal Throughput This Month (tons)			Metal Throughput Previous 11 Months (tons)			12 Month Total Metal Throughput (tons)		
	Electric Induction Furnaces	Charge Handling	Reaction/Holding Ladle	Electric Induction Furnaces	Charge Handling	Reaction/Holding Ladle	Electric Induction Furnaces	Charge Handling	Reaction/Holding Ladle

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

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

Attach a signed certification to complete this report.

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

**FESOP Quarterly Report**

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: pouring and cooling operations (EU-05)  
Parameter: Metal throughput  
Limit: The throughput of metal to the pouring and cooling operations (EU-05) shall be limited to less than 20,000 tons per twelve consecutive month period with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Metal Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
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**

**FESOP Quarterly Report**

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: shakeout and shot blast operations (EU-06A and EU-06B)  
Parameter: Metal throughput  
Limit: The throughput of metal to the shakeout and shot blast operations (EU-06A and EU-06B) shall be limited to less than 20,000 tons per twelve consecutive month period with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Metal Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
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

### FESOP Quarterly Report

Source Name: Interstate Castings  
 Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 FESOP No.: F097-18317-00063  
 Facility: Two (2) electric induction furnaces (EU-01)  
 Parameter: Manganese and total HAP emissions  
 Limit: Emissions of manganese from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall not exceed 0.207 ton per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Emission of any combination of HAPs from the two (2) electric induction furnaces (EU-01) exhausting through Stack B shall not exceed 2.40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Compliance with the above limits shall be determined using the equations in Condition D.1.8(a) and (c). Please attach supporting calculations and data used for determining HAP emissions reported.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1a	Column 1b	Column 1c	Column 2a	Column 1a + Column 1c	Column 1b + Column 2b
	Manganese Emissions This Month (tons)	Total HAP Emissions This Month (tons)	Manganese Emissions Previous 11 Months (tons)	Total HAP Emissions Previous 11 Months (tons)	12 Month Total Mn Emissions (tons)	12 Month Total HAP Emissions (tons)

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

### FESOP Quarterly Report

Source Name: Interstate Castings  
 Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 FESOP No.: F097-18317-00063  
 Facility: Charge handling (EU-02) and reaction/holding ladle (EU-04) processes  
 Parameter: Manganese and total HAP emissions  
 Limit: Emissions of manganese from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall not exceed 0.744 ton per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Emission of any combination of HAPs from the charge handling (EU-02) and reaction/holding ladle (EU-04) processes exhausting through stacks V11 and V12 shall not exceed 1.01 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Compliance with the above limits shall be determined using the equations in Condition D.1.8(b) and (d). Please attach supporting calculations and data used for determining HAP emissions reported.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1a	Column 1b	Column 1c	Column 2a	Column 1a + Column 1c	Column 1b + Column 2b
	Manganese Emissions This Month (tons)	Total HAP Emissions This Month (tons)	Manganese Emissions Previous 11 Months (tons)	Total HAP Emissions Previous 11 Months (tons)	12 Month Total Mn Emissions (tons)	12 Month Total HAP Emissions (tons)

- 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

### FESOP Quarterly Report

Source Name: Interstate Castings  
 Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 FESOP No.: F097-18317-00063  
 Facility: Pouring and cooling operations (EU-05)  
 Parameter: Manganese and total metal HAP emissions  
 Limit: Total emissions of manganese from the pouring and cooling operations shall not exceed 1.30 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Total emissions of any combination of metal HAPs from the pouring and cooling operations shall not exceed 1.77 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits shall be determined using the equations in Condition D.2.9(a)(1) and D.2.9(a)(2). Please attach supporting calculations and data used for determining HAP emissions reported.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1a	Column 1b	Column 1c	Column 2a	Column 1a + Column 1c	Column 1b + Column 2b
	Manganese Emissions This Month (tons)	Total HAP Emissions This Month (tons)	Manganese Emissions Previous 11 Months (tons)	Total HAP Emissions Previous 11 Months (tons)	12 Month Total Mn Emissions (tons)	12 Month Total HAP Emissions (tons)

- 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

### FESOP Quarterly Report

Source Name: Interstate Castings  
 Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
 FESOP No.: F097-18317-00063  
 Facility: Shakeout and shot blast operations (EU-06A and EU-06B)  
 Parameter: Manganese and total metal HAP emissions  
 Limit: Total emissions of manganese from the shakeout and shot blast operations shall not exceed 0.0626 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Total emissions of any combination of metal HAPs from shakeout and shot blast operations shall not exceed 2.39 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Compliance with the above limits shall be determined using the equations in Condition D.2.9(a)(3) and D.2.9(a)(4). Please attach supporting calculations and data used for determining HAP emissions reported.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1a	Column 1b	Column 1c	Column 2a	Column 1a + Column 1c	Column 1b + Column 2b
	Manganese Emissions This Month (tons)	Total HAP Emissions This Month (tons)	Manganese Emissions Previous 11 Months (tons)	Total HAP Emissions Previous 11 Months (tons)	12 Month Total Mn Emissions (tons)	12 Month Total HAP Emissions (tons)

- 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**

**FESOP Quarterly Report**

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: Pouring and cooling (EU-05) and the shakeout operations (EU-06A)  
Parameter: Total organic HAP emissions  
Limit: Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed 12.1 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Compliance with the above limits shall be determined using the equation in Condition D.2.8(b).

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Total Organic HAP Emissions This Month (tons)	Total Organic HAP Emissions Previous 11 Months (tons)	12 Month Total Organic HAP Emissions (tons)
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**

**FESOP Quarterly Report**

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: Air Set Core Making Process  
Parameter: Sand Used  
Limit: 4,500 tons of sand per twelve consecutive month period with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Tons of sand used this Month	Tons of sand used previous 11 Months	Tons of sand used 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

### FESOP Quarterly Report

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: Oil Sand Core Oil Making Process  
Parameter: Sand Used  
Limit: 730 tons of sand per twelve consecutive month period with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Tons of sand used this Month	Tons of sand used previous 11 Months	Tons of sand used 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**

**FESOP Quarterly Report**

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: Redford Shell Core Machines  
Parameter: Shell Sand Used  
Limit: 120 tons of shell sand per twelve consecutive month period with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Tons of sand used this Month	Tons of sand used previous 11 Months	Tons of sand used 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**

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

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave. Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

#### Source Description and Location

<b>Source Name:</b>	<b>Interstate Castings</b>
<b>Source Location:</b>	<b>3823 Massachusetts Avenue, Indianapolis, Indiana 46218</b>
<b>County:</b>	<b>Marion</b>
<b>SIC Code:</b>	<b>3321</b>
<b>Operation Permit No.:</b>	<b>F097-18317-00063</b>
<b>Operation Permit Issuance Date:</b>	<b>April 16, 2007</b>
<b>Minor Permit Revision No.:</b>	<b>MPR097-27070-00063</b>
<b>Permit Reviewer:</b>	<b>M. Caraher</b>

On October 3, 2008, the Office of Air Quality (OAQ) received an application from Interstate Castings related to a modification to an existing gray and ductile iron castings manufacturing plant.

#### Existing Approvals

The source was issued FESOP Renewal No. F097-18317-00063 on April 16, 2007. The source has since received the following approval:

- (a) First Administrative Amendment No. AA097-25719-00063, issued on January 14, 2008.

#### County Attainment Status

The source is located in Marion County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11 <sup>th</sup> Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O <sub>3</sub>	Attainment effective November 8, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.
<sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Basic Nonattainment effective April 5, 2005 for PM <sub>2.5</sub> .	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (3) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8<sup>th</sup>, 2008, U.S. EPA promulgated specific New Source Review rules for PM2.5 emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Therefore, direct PM2.5 and SO<sub>2</sub> emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

Marion County has been classified as attainment or unclassifiable in Indiana for PM10, SO<sub>2</sub>, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

<b>Fugitive Emissions</b>
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Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2 and 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD and Part 70 Permit applicability.

<b>Status of the Existing Source</b>
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The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

Process/Emission Unit	Potential To Emit of the Entire Source (tons/year)								Total HAPs	Highest Single HAP
	PM	PM10	PM2.5 *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO			
Furnaces (EU-01) - Stack B	6.7 <sup>(1)</sup>	6.4 <sup>(1)</sup>	6.4 <sup>(1)</sup>	0	0	0	0	7.77 <b>13.09</b> <sup>(6)</sup>	2.38 tons of Mn <sup>(4)</sup>	
Furnaces (EU-01) - Not Captured	0.1	0.1	0.1	0	0	0	0			
Charge Handling (EU-02)	6.0 <sup>(1)</sup>	5.4 <sup>(1)</sup>	5.4 <sup>(1)</sup>	0	0	0	0			
Preheater (EU-03)	0.83	1.24	1.24	0.07	10.9	0.60	9.20			
Inoculation (EU-04)	18.0 <sup>(1)</sup>	27 <sup>(1)</sup>	27 <sup>(1)</sup>	0	0	0	0			
Shakeout, Casting Cleaning, Sand Handling (EU-06A, EU-06B, EU-06C)										
Stack A - Emissions	5.22 <sup>(2)</sup>	1.31 <sup>(2)</sup>	1.31 <sup>(2)</sup>	0	0	26.0	0			
Emissions Not Captured	5.27	0.88	0.88	0	0	0.26	0 <sup>(3)</sup>			
Pouring/Cooling (EU-05)	42.0 <sup>(1)</sup>	30.9 <sup>(1)</sup>	30.9 <sup>(1)</sup>	0.44	0.22	3.07	60			
Core Oil Core Making (EU-08)	1.31 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0	0	16.3	0			
Redford Shell Core Machines (EU-09A, EU-09B)	0.22 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0	0	0.04	0			
Air Set Core Making (EU-07)	8.10 <sup>(5)</sup>	1.82 <sup>(5)</sup>	1.82 <sup>(5)</sup>	0	0	13.6	0			
Insignificant										
Wood Working	0.6	0.6	0.6	0	0	0	0			
Paved Roads	0.1	0.01	0.01							
Natural Gas Combustion	0.23	0.23	0.23	0.02	3.08	0.17	2.59	0	0	
<b>Total PTE of Entire Source</b>	<b>94.7</b>	<b>76.2</b>	<b>76.2</b>	<b>0.53</b>	<b>14.2</b>	<b>60.0</b>	<b>71.8</b>	<b>&lt; 25.0</b>	<b>&lt; 10.0</b>	
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10	
PSD Major Source Thresholds	100	100	NA	100	100	100	100	NA	NA	
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA	
negl. = negligible These emissions are based upon FESOP Renewal No. F097-18317-00063 on April 16, 2007. *Direct PM2.5 emissions are assumed to be equal to PM10 emissions.										

- (1) PTE based on 20,000 tons of metal melted per 12 month period, (20,000 tons of metal melted is equivalent to 4,000 hours of operation at 5 tons per hour).  
 (2) PTE based on 99% capture efficiency, FIRE 6.25 emission factors and 20,000 tons of metal melted per 12 month period.  
 (3) The CO emissions were accounted for in the pouring and cooling calculations.  
 (4) PTE for Manganese (Mn) was based on 20,000 tons of metal melted per 12 month period and emissions factors obtained from the Speciate V3.2 Database.  
 (5) PTE based on sand usage limits per 12 month period.  
 (6) The TSD table for F097-18317-00063 listed only combined metal HAP at 7.7 tons per year and did not add the organic HAP component of 5.49 tons per year (see Addendum to TSD Appendix A page 15 of 15).

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the Permittee has accepted limits on HAPs emissions to less than ten (10) tons per year for any single HAP and less than twenty five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application submitted by Interstate Castings on October 3, 2008, relating to delete future stack testing frequency requirements, to adjust existing organic HAP

limits while continuing to remain a minor HAP source, and to add a sand reclamation system that has the potential to emit PM and PM10 in excess of twenty five (25) tons per year. Additional information was received from Interstate Castings on November 26, 2008 requesting to replace the B&P auto mold machine, which is included in emission unit EU-06C sand handling operations, with a like kind replacement.

- (1) FESOP Renewal No. F097-18317-00063 issued on April 16, 2007 required stack testing for PM, PM10 (filterable and condensable) and manganese (a single HAP) emissions from one of the two electric induction furnaces (EU-01), pouring and cooling operations (EU-05), and shakeout, casting cleaning, and sand handling operations (EU-06A, EU-06B and EU-06C). This permit also required stack testing for total organic HAP emissions from the pouring and cooling operations (EU-05) and shakeout operations (EU-06A). Stack testing was required by this permit in order to verify emission factors and to verify compliance with FESOP emission limitations. The stack testing protocol for total organic HAP testing was approved to test for total VOC only and required no speciation for individual organic HAP emission rates. All testing was performed and completed in September 2007. The application submitted by Interstate Castings serves to speciate the individual organic HAP emission rates by calculation from total VOC emission results from stack testing results on pouring, cooling and shakeout operations and to adjust existing organic HAP limits while continuing to remain a minor HAP source.
- (2) The potential to emit combined HAPs in FESOP Renewal No. F097-18317-00063 was limited to 13.09 tons per year (see Potential to Emit of the Entire Source table). The combined HAPs consist of individual metal HAPs and organic HAPs. The limited organic HAP portion from pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed 1.94 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Stack testing conducted in September 2007 on these emission units showed, if extrapolated to the metal melt limit of 20,000 tons per year, a combined organic HAP emission rate of 12.07 tons per year (see TSD Appendix A page 1). No single organic HAP from these operations exceeds ten (10) tons per year (see TSD Appendix A page 3). Therefore, Interstate Castings has requested that the combined organic HAP limit for pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) be adjusted from 1.94 tons per year to 12.1 tons per year. Compliance with this limit when combined with the potential to emit from source wide operations limit any single HAP emissions to less than ten (10) tons per twelve consecutive month period and limit source wide operations to less than twenty five (25) tons per twelve consecutive month period with compliance determined at the end of each month.
- (3) The following is a list of the new emission unit and pollution control device:
  - (g) One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.

<b>Enforcement Issues</b>
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There are no pending enforcement actions related to this revision.

<b>Emission Calculations</b>
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See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP Revision**

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/Emission Unit	PTE of Proposed Revision (tons/year)							Total HAPs	Highest Single HAP
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO		
Furnaces (EU-01) - Stack B	0	0	0	0	0	0	0	26.5	7.26
Furnaces (EU-01) - Not Captured	0	0	0	0	0	0	0		
Charge Handling (EU-02)	0	0	0	0	0	0	0		
Preheater (EU-03)	0	0	0	0	0	0	0		
Inoculation (EU-04)	0	0	0	0	0	0	0		
Shakeout, Casting Cleaning, Sand Handling (EU-06A, EU-06B, EU-06C)									
Stack A - Emissions	0	0	0	0	0	26.5	0		
Emissions Not Captured	0	0	0	0	0	0	0		
Pouring/Cooling (EU-05)	0	0	0	0	0	3.07 <sup>(1)</sup>	0		
Core Oil Core Making (EU-08)	0	0	0	0	0	0	0		
Redford Shell Core Machines (EU-09A, EU-09B)	0	0	0	0	0	0	0		
Air Set Core Making (EU-07)	0	0	0	0	0	0	0		
Airset mechanical sand reclamation unit (EU-10)	189.22	28.38	28.38	0	0	0	0	0	0
<b>Total PTE of Proposed Revision</b>	<b>189.22</b>	<b>28.38</b>	<b>28.38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26.50</b>	<b>7.26</b>

negl. = negligible  
 \* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". \*\*Direct PM2.5 emissions are assumed to be equal to PM10 emissions.  
 (1) Pouring/Cooling (EU-05) emissions are included as Stack A emissions for the purposes of this review.

This FESOP is being revised through a FESOP Minor Permit revision pursuant to 326 IAC 2-8-11.1(d)(5)(C) because the revision involves the construction of a new sand reclamation emission unit where the applicant has certified to the Commissioner that the use of a particulate air pollution control device, by supplier guarantee, that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions of less than twenty five (25) tons of particulate matter (PM) per year and less than fifteen (15) tons per year of particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM10). The applicant request to reduce the frequency of stack testing qualifies as a FESOP Minor Permit Revision pursuant to 326 IAC 2-8-11.1(d)(1). The adjustment of the combined organic HAP emissions from pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) qualifies as a FESOP Minor Permit Revision pursuant to 326 IAC 2-8-11(d)(5)(D) because the revision limits raw material throughput such that combined HAP emissions from source wide operations do not exceed twenty five (25) tons per year and single HAP emissions from source wide operations do not exceed ten (10) tons per year. The replacement of the B&P auto mold machine, which is included in emission unit EU-06C sand handling operations, with a like kind replacement, also qualifies as a FESOP Administrative Amendment, pursuant to 326 IAC 2-8-10(a)(13) and this descriptive change is included in this FESOP Minor Permit Revision.

**PTE of the Entire Source After Issuance of the FESOP Revision**

The table below summarizes the potential to emit of the entire source reflecting the adjustment of existing limits and the addition of the one (1) sand reclamation unit, identified as EU-10, with updated emissions

shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								Total HAPs	Highest Single HAP
	PM	PM10 *	PM2.5 **	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO			
Furnaces (EU-01) - Stack B	6.7 <sup>(1)</sup>	6.4 <sup>(1)</sup>	6.4 <sup>(1)</sup>	0	0	0	0			
Furnaces (EU-01) - Not Captured	0.1	0.1	0.1	0	0	0	0			
Charge Handling (EU-02)	6.0 <sup>(1)</sup>	5.4 <sup>(1)</sup>	5.4 <sup>(1)</sup>	0	0	0	0			
Preheater (EU-03)	0.83	1.24	1.24	0.07	10.9	0.60	9.20			
Inoculation (EU-04)	18.0 <sup>(1)</sup>	27 <sup>(1)</sup>	27 <sup>(1)</sup>	0	0	0	0			
Shakeout, Casting Cleaning, Sand Handling (EU-06A, EU-06B, EU-06C)								<b>19.96</b>		
Stack A - Emissions	5.22 <sup>(2)</sup>	1.31 <sup>(2)</sup>	1.31 <sup>(2)</sup>	0	0	<b>26.5</b>	0	<del>13.09</del>		<b>3.31</b>
Emissions Not Captured	5.27	0.88	0.88	0	0	0.26	0 <sup>(3)</sup>			<del>2.38</del> <b>tons of Mn<sup>(4)</sup></b>
Pouring/Cooling (EU-05)	42.0 <sup>(1)</sup>	30.9 <sup>(1)</sup>	30.9 <sup>(1)</sup>	0.44	0.22	<del>3.07</del> <sup>(6)</sup>	60			
Core Oil Core Making (EU-08)	1.31 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0	0	16.3	0			
Redford Shell Core Machines (EU-09A, EU-09B)	0.22 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0	0	0.04	0			
Air Set Core Making (EU-07)	8.10 <sup>(5)</sup>	1.82 <sup>(5)</sup>	1.82 <sup>(5)</sup>	0	0	13.6	0			
<b>Airset mechanical sand reclamation unit (EU-10)</b>	<b>3.75</b>	<b>3.75</b>	<b>3.75</b>	0	0	0	0	0	0	0
Insignificant Wood Working	0.6	0.6	0.6	0	0	0	0			
Paved Roads	0.1	0.01	0.01							
Natural Gas Combustion	0.23	0.23	0.23	0.02	3.08	0.17	2.59	0	0	
Total PTE of Entire Source	<b>98.45</b>	<b>79.9</b>	<b>79.9</b>	0.53	14.2	<b>57.4</b>	71.8	< 25.0	< 10.0	
	<del>94.7</del>	<del>76.2</del>	<del>76.2</del>			<del>60.0</del>				
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10	
PSD Major Source Thresholds	100	100	NA	100	100	100	100	NA	NA	
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA	
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **Direct PM2.5 emissions are assumed to be equal to PM10 emissions. (1) Pouring/Cooling (EU-05) emissions are included as Stack A emissions for the purposes of this review.										

(1) PTE based on 20,000 tons of metal melted per 12 month period, (20,000 tons of metal melted is equivalent to 4,000 hours of operation at 5 tons per hour).

(2) PTE based on 99% capture efficiency, FIRE 6.25 emission factors and 20,000 tons of metal melted per 12 month period.

(3) The CO emissions were accounted for in the pouring and cooling calculations.

(4) PTE for Toluene was based on 20,000 tons of metal melted per 12 month period and emissions factors obtained from the Speciate V3.2 Database and the September 2007 stack test data.

(5) PTE based on sand usage limits per 12 month period.

(6) Pouring/Cooling (EU-05) emissions are included as Stack A emissions for the purposes of this review.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10 *	PM2.5 **	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Highest Single HAP
Furnaces (EU-01) - Stack B	6.7 <sup>(1)</sup>	6.4 <sup>(1)</sup>	6.4 <sup>(1)</sup>	0	0	0	0	<b>19.96</b>	<b>3.31<sup>(4)</sup></b>
Furnaces (EU-01) - Not Captured	0.1	0.1	0.1	0	0	0	0		
Charge Handling (EU-02)	6.0 <sup>(1)</sup>	5.4 <sup>(1)</sup>	5.4 <sup>(1)</sup>	0	0	0	0		
Preheater (EU-03)	0.83	1.24	1.24	0.07	10.9	0.60	9.20		
Inoculation (EU-04)	18.0 <sup>(1)</sup>	27 <sup>(1)</sup>	27 <sup>(1)</sup>	0	0	0	0		
Shakeout, Casting Cleaning, Sand Handling (EU-06A, EU-06B, EU-06C)									
Stack A - Emissions	5.22 <sup>(2)</sup>	1.31 <sup>(2)</sup>	1.31 <sup>(2)</sup>	0	0	26.5	0		
Emissions Not Captured	5.27	0.88	0.88	0	0	0.26	0 <sup>(3)</sup>		
Pouring/Cooling (EU-05)	42.0 <sup>(1)</sup>	30.9 <sup>(1)</sup>	30.9 <sup>(1)</sup>	0.44	0.22	<sup>(6)</sup>	60		
Core Oil Core Making (EU-08)	1.31 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0.29 <sup>(5)</sup>	0	0	16.3	0		
Redford Shell Core Machines (EU-09A, EU-09B)	0.22 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0.05 <sup>(5)</sup>	0	0	0.04	0		
Air Set Core Making (EU-07)	8.10 <sup>(5)</sup>	1.82 <sup>(5)</sup>	1.82 <sup>(5)</sup>	0	0	13.6	0		
<b>Airset mechanical sand reclamation unit (EU-10)</b>	<b>3.75</b>	<b>3.75</b>	<b>3.75</b>	0	0	0	0	0	0
Insignificant Wood Working	0.6	0.6	0.6	0	0	0	0		
Paved Roads	0.1	0.01	0.01						
Natural Gas Combustion	0.23	0.23	0.23	0.02	3.08	0.17	2.59	0	0
<b>Total PTE of Entire Source</b>	<b>98.45</b>	<b>79.9</b>	<b>79.9</b>	0.53	14.2	<b>57.4</b>	71.8	< 25.0	< 10.0
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	NA	100	100	100	100	NA	NA
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **Direct PM2.5 emissions are assumed to be equal to PM10 emissions.									

- (1) PTE based on 20,000 tons of metal melted per 12 month period, (20,000 tons of metal melted is equivalent to 4,000 hours of operation at 5 tons per hour).
- (2) PTE based on 99% capture efficiency, FIRE 6.25 emission factors and 20,000 tons of metal melted per 12 month period.
- (3) The CO emissions were accounted for in the pouring and cooling calculations.
- (4) PTE for Toluene was based on 20,000 tons of metal melted per 12 month period and emissions factors obtained from the Speciate V3.2 Database and the September 2007 stack test data.
- (5) PTE based on sand usage limits per 12 month period.
- (6) Pouring/Cooling (EU-05) emissions are included as Stack A emissions for the purposes of this review.

(a) FESOP Status

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) and 326 IAC 2-7 (Part 70 Permit Program) the source shall comply with the following:

- (1) The potential to emit PM, PM10 and PM2.5 from the one (1) airset mechanical sand

reclamation unit, identified as emission unit EU-10, shall not exceed 0.01 grains per dry standard cubic foot of exhaust air and shall not exceed 0.86 pounds per hour.

- (2) Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed 1.21 pounds of total organic HAP per ton of metal melted. Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed 12.1 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM10 and PM2.5 to less than one hundred (100) tons per twelve (12) consecutive month period, and shall limit the potential to emit total HAPs to less than twenty five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable.

- (b) PSD Minor Source  
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold level. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

#### **Federal Rule Applicability Determination**

##### New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included for this proposed revision.

##### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Iron and Steel Foundries, 40 CFR 63.7681, Subpart EEEEE (326 IAC 20-92), are not included for this revision because this source is not a major source of HAPs.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Integrated Iron and Steel Manufacturing Facilities, 40 CFR 63.7681, Subpart FFFFF (326 IAC 20-93), are not included in this revision because this source is not a major source of HAPs and it does not produce steel from iron ore.
- (c) This source will be subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources, 40 CFR 63.10880, Subpart ZZZZZ, because this source is an existing small iron foundry because it was constructed prior to September 17, 2007 and the metal melt production rate for calendar year 2008 is equal to or less than 20,000 tons per year. The first significant compliance date for this source is in calendar year 2009 and, as a result, the source has requested that the applicable provisions of 40 CFR 63.10880, Subpart ZZZZZ not be included in this FESOP Minor Permit Revision 097-27070-00063.
- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

### Compliance Assurance Monitoring (CAM)

- (e) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

<b>State Rule Applicability Determination</b>
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The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-1.1-5 (Nonattainment New Source Review)  
Assuming that PM10 emissions represent PM2.5 emissions, compliance with the PM10 limit shall also limit the source-wide potential to emit of PM2.5 to less than one hundred (100) tons per twelve (12) consecutive month period and shall render 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The unlimited potential to emit of HAPs from the source is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall limit the potential to emit of HAPs from the source to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the proposed revision is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (d) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 326 IAC 2-8-4 (FESOP)  
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (f) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) 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.

- (g) 326 IAC 6.5 (Particulate Matter Limitations)  
 This source has the potential to emit one hundred (100) tons or more of particulate matter per year. Pursuant to 326 IAC 6.5, particulate matter emissions from the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf) of exhaust air.
- (h) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
 Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (n) 326 IAC 12 (New Source Performance Standards)  
 See Federal Rule Applicability Section of this TSD.
- (o) 326 IAC 20 (Hazardous Air Pollutants)  
 See Federal Rule Applicability Section of this TSD.

<b>Compliance Determination and Monitoring Requirements</b>
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- (a) The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

Emission Unit / Control	Operating Parameters	Frequency
EU-10 / Baghouse CE-D	Pressure Drop	Once per day
EU-10 / Baghouse CE-D	Visible Emissions	Once per day

<b>Proposed Changes</b>
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- (a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

Change 1

The replacement of the B&P auto mold machine, which is included in emission unit EU-06C sand handling operations, with a like kind replacement and the addition of the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, causes the revisions shown below to Section A.2, D.2 and D.3.

The stack testing performed and completed in September 2007 demonstrated compliance with PM, PM10 and manganese emission limits. Because these units utilize control equipment to comply with applicable emission limit, Condition D.1.7 and Condition D.2.8 for PM, PM10 and manganese will not be revised and retesting is required. The stack testing for uncontrolled PM, PM10, manganese and organic HAP from pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) demonstrated that uncontrolled PM, PM10, manganese and organic HAP emissions are less than fifty percent of the major source threshold. Therefore, uncontrolled PM, PM10, manganese and organic HAP retesting in Condition D.2.8 is deleted from the FESOP.

Based on the stack test results for organic HAP emissions from pouring, cooling and shakeout, organic HAP emissions in Condition D.2.9(b) are revised. Compliance with the combined HAP limit ensures compliance with any single HAP emissions (see TSD Appendix A page 3 of 4). The

Quarterly Report form for combined organic HAP emissions, pursuant to Condition D.2.5 and D.2.12, is also revised as shown below.

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

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

...

- (e) Sand Handling Operations, collectively identified as EU-06C, installed prior to 1967 and modified in 1998 and in 2000, with a maximum capacity of 20.63 tons of sand per hour, consisting of the following:
  - (1) One (1) sand muller;
  - (2) Thirteen (13) hopper stations;
  - (3) One (1) sand elevator;
  - (4) One (1) sand tank;
  - (5) One (1) sand cooler;
  - (6) Seven (7) belts;
  - (7) One (1) molding line consisting of a B & P 16 X 20 mold machine, **approved to construct in 2008** ~~constructed in 2002~~, with a maximum production capacity of 80 molds per hour, each mold weighing 140 pounds; and
  - (8) One (1) molding line consisting of a Sinto FB03 20 X 24 mold machine, constructed in 1998, with a maximum production capacity of 80 molds per hour, each mold weighing 240 pounds.

Emissions are collected by various hoods located throughout the sand handling process line and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

...

- (g) **One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.**

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

...

- (e) Sand Handling Operations, collectively identified as EU-06C, installed prior to 1967 and modified in 1998 and in 2002, with a maximum capacity of 20.63 tons of sand per hour, consisting of the following:
- (1) One (1) sand muller;
  - (2) Thirteen (13) hopper stations;
  - (3) One (1) sand elevator;
  - (4) One (1) sand tank;
  - (5) One (1) sand cooler;
  - (6) Seven (7) belts;
  - (7) One (1) molding line consisting of a B & P 16 X 20 mold machine, **approved to construct in 2008** ~~constructed in 2002~~, with a maximum production capacity of 80 molds per hour, each mold weighing 140 pounds; and
  - (8) One (1) molding line consisting of a Sinto FB03 20 X 24 mold machine, constructed in 1998, with a maximum production capacity of 80 molds per hour, each mold weighing 240 pounds.

Emissions are collected by various hoods located throughout the sand handling process line and are controlled by a dust collector, identified as CE-A, which exhausts through stack A.

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

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

...

**D.2.5 Organic HAP Minor Limit**

Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed **1.21 pounds of combined organic HAP per ton of metal melted and 12.1** ~~4.94~~ tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Compliance with the limit in conjunction with the other combined HAP limits included in this permit limit source-wide emissions of any combination of HAPs to less than 25 tons per year.

...

**Compliance Determination Requirements**

**D.2.8 Testing Requirements [326 IAC 2-8-4(3)]**

- (a) Within one hundred and eighty (180) days after the issuance of this permit and in order to demonstrate compliance with Conditions D.2.1, D.2.2, D.2.3, and D.2.4 the Permittee shall perform PM, PM10, and Manganese testing on ~~the Pouring and Cooling Operations (EU-05) and the shakeout, casting cleaning, and sand handling operations (EU-06A, EU-06B, and EU-06C)~~ using methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 shall include filterable and condensable PM10. This test shall be repeated at least once every five (5)

years from the date of the most recent valid compliance demonstration.

~~(b) Within one hundred and eighty (180) days after the issuance of this permit and in order to demonstrate compliance with Condition D.2.5, the Permittee shall perform total organic HAP testing on the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) using methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C – Performance Testing. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.~~

#### D.2.9 ~~Metallic~~ HAP Emissions Compliance Demonstrations

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(a) Compliance with the metal HAP limits in Condition D.2.4 shall be demonstrated using the following equations:

- (1) Manganese Emissions from the pouring and cooling operations (tons/yr) =  
 $(EF_{PCMn} \times M_{PC}) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{PCMn}$  = 0.1302 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{PC}$  = total metal throughput to the pouring and cooling operations (tons per twelve (12) consecutive month period)

- (2) Total Metal HAP Emissions from the pouring and cooling operations (tons/yr) =  
 $(EF_{PCTM} \times M_{PC}) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{PCTM}$  = 0.177 pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_{PC}$  = total metal throughput to the pouring and cooling operations (tons per twelve (12) consecutive month period)

- (3) Manganese Emissions from the shakeout and shot blast operations (tons/yr) =  
 $(EF_{SMn} \times M_S) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{SMn}$  = 0.00626 pound manganese per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_S$  = total metal throughput to the shakeout and shot blast operations (tons per twelve (12) consecutive month period)

- (4) Total Metal HAP Emissions from the shakeout and shot blast operations (tons/yr) =  
 $(EF_{STM} \times M_S) \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

$EF_{STM}$  = 0.239 pound combined metal HAP per ton of metal throughput (or an emission factor determined from the most recent compliance stack test)

$M_S$  = total metal throughput to the shakeout and shot blast operations (tons per twelve (12) consecutive month period)

- (5) Upon IDEM approval of total metallic HAP compliance stack test results on pouring and cooling operations, the manganese and total metallic HAP emission factors in pound per ton obtained from the IDEM approved stack test results shall be used for the variables identified above as  $EF_{PCMn}$  and  $EF_{PCTM}$ .

- (b) Compliance with the organic HAP limit in Condition D.2.5 shall be demonstrated using the following equation:

Total Organic HAP Emissions from the pouring and cooling operations and the shakeout operations (tons/yr) = **1.21 pounds of organic HAP per ton of metal melted x tons of metal melted**  $\{[(EF_{AS} \times R_{AS}) + (EF_{OC} \times R_{OC}) + (EF_{SS} \times R_{SS})]\} \times (1 \text{ ton} / 2000 \text{ pounds})$

Where:

~~$EF_{AS}$  = 0.03184 pound combined organic HAP per pound of resin used in the air set core making operation (or an emission factor determined from the most recent compliance stack test)~~

~~$R_{AS}$  = total resin usage in the air set core making operation (pounds per twelve (12) consecutive month period)~~

~~$EF_{OC}$  = 0.004574 pound combined organic HAP per pound of core oil used (or an emission factor determined from the most recent compliance stack test)~~

~~$R_{OC}$  = total core oil usage in the oil core making operation (pounds per twelve (12) consecutive month period)~~

~~$EF_{SS}$  = 0.026222 pound combined organic HAP per pound of resin used in the redford shell sand core making operation (or an emission factor determined from the most recent compliance stack test)~~

~~$R_{SS}$  = total resin usage in the redford shell sand core making operation (pounds per twelve (12) consecutive month period)~~

~~Upon IDEM approval of total Organic HAP compliance stack test results on the pouring and cooling operations and the shakeout operations, the total Organic HAP emission factors in pound per pound obtained from the IDEM approved stack test results shall be used for the variables identified above as  $EF_{AS}$ ,  $EF_{OC}$ , and  $EF_{SS}$ .~~

...

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

#### D.2.13 Record Keeping Requirements

---

...

- (c) To document compliance with Condition D.2.5, the Permittee shall maintain records of the following:
- (1) Organic HAP stack test results for the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) as applicable;
  - (2) Organic HAP emission calculations performed using the equations in Condition D.2.9(b); and
  - (3) Organic HAP emissions in tons per year.

...

#### D.2.14 Reporting Requirements

---

A quarterly summary of the information to document compliance with Conditions D.2.2, D.2.3, D.2.4, and D.2.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-8-4(10)]

...

- (g) One (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, approved for construction in 2008, with a maximum capacity of twelve (12) tons per hour, using a cartridge filter identified as CE-D as control, and exhausting to a stack identified as stack/vent D.**

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

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

##### D.3.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), the PM emissions from the core making operations **and the airset mechanical sand reclamation unit** (EU-07, EU-08, EU-9A, ~~and~~ EU-9B **and EU-10**) shall each not exceed 0.03 grains per dry standard cubic foot of exhaust gas. For the purposes of demonstrating compliance with 326 IAC 6.5-1-2(a) only the filterable fraction of PM shall be counted.

##### D.3.2 FESOP PM10 Limit [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4 (FESOP), the Permittee shall comply with the following for **EU-10 and the** sand usage and emission limits for the core making operations:

- (a) The amount of sand at the air set core making process (EU-07) shall be limited to less than 4,500 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The amount of sand at the oil sand core making process (EU-08) shall be limited to less than 730 tons per twelve consecutive month period with compliance determined at the end of each month.
- (c) The amount of shell sand at the Redford shell core making processes (EU-09A and EU-09B) shall be limited to less than 120 tons per twelve consecutive month period with compliance determined at the end of each month.
- (d) The PM10 emissions from the air set core making process, oil sand core making process, and the Redford shell core making processes (EU-07, EU-08, EU-09A, and EU-09B) shall each not exceed 0.81 lbs PM10/ton sand.
- (e) The potential to emit PM10 and PM2.5 from the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, shall not exceed 0.01 grains per dry standard cubic foot of exhaust air and shall not exceed 0.86 pounds per hour.**

Combined with the PM10 emissions **and PM2.5 emissions** from other emission units, the PM10 emissions **and PM2.5 emissions** from the entire source are each limited to less than 100 tons per year. Therefore, compliance with this Condition and Conditions D.1.2, D.2.2, and D.4.1 makes the Part 70 Operating Permit requirements (326 IAC 2-7) Prevention of Significant Deterioration (PSD) (326 IAC 2-2), and Nonattainment NSR (326 IAC 2-1.1-5) not applicable.

##### D.3.3 PSD Minor Source Limit [326 IAC 2-2]

- (a) The amount of sand used in the air set core making process (EU-07) shall be limited to

less than 4,500 tons per twelve consecutive month period with compliance determined at the end of each month.

- (b) The amount of sand used in the oil sand core making process (EU-08) shall be limited to less than 730 tons per twelve consecutive month period with compliance determined at the end of each month.
- (c) The amount of shell sand used in the Redford shell core making processes (EU-09A and EU-09B) shall be limited to less than 120 tons per twelve consecutive month period with compliance determined at the end of each month.
- (d) The PM emissions from the air set, core oil, and Redford shell core making operations (EU-07, EU-08, EU-09A, and EU-09B) shall be limited to 3.6 lbs PM/ton sand.
- (e) **The potential to emit PM from the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, shall not exceed 0.01 grains per dry standard cubic foot of exhaust air and shall not exceed 0.86 pounds per hour.**

Compliance with these limitations renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration not applicable.

...

### Compliance Determination Requirements

#### D.3.5 Particulate Matter (PM)

- (a) **In order to demonstrate compliance with Conditions D.3.2 and D.3.3, the cartridge filter identified as CE-D, shall be in operation and control emissions from the airset mechanical sand reclamation unit, identified as emission unit EU-10 at all times that EU-10 is in operation.**
- (b) **In the event that bag failure is observed in a multi-compartment baghouse or cyclone failure is observed, 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 2-8-4] [326 IAC 2-8-5(a)(1)]

#### D.3.65 Visible Emissions Notations

- (a) Visible emission notations of stacks V4, V5, ~~and V38~~ **and D** shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions

for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or 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**

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The Permittee shall record the pressure drop across the cartridge filter, identified as CE-D, used in conjunction with the one (1) airset mechanical sand reclamation unit, identified as emission unit EU-10, at least once per day when the process is in operation. When for any one reading, the pressure drop across the cartridge filter is outside the normal range of 1.0 and 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 or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances.

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.3.8 Broken or Failed Bag Detection**

---

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

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

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

### **D.3.96 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.3.2, D.3.3, and D.3.4, the Permittee shall maintain monthly records of the tons of sand used in each core making process.
- (b) To document compliance with Condition D.3.65, the Permittee shall maintain daily records of visible emission notations of stacks V4, V5, and V38 and D exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (c) To document compliance with Condition D.3.7, the Permittee shall maintain daily

**records of the pressure drop across the baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).**

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

#### D.3.107 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.2, D.3.3, and D.3.4 shall be submitted to the addresses listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

FESOP Quarterly Report

Source Name: Interstate Castings  
Source Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
Mailing Address: 3823 Massachusetts Ave., Indianapolis, Indiana 46218  
FESOP No.: F097-18317-00063  
Facility: Pouring and cooling (EU-05) and the shakeout operations (EU-06A)  
Parameter: Total organic HAP emissions  
Limit: Emissions of any combination of organic HAPs from the pouring and cooling operations (EU-05) and the shakeout operations (EU-06A) combined shall not exceed ~~12.14~~94 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
Compliance with the above limits shall be determined using the equations in Condition **D.2.8(b)** ~~D.2.9(b)~~. ~~Please attach supporting calculations and data used for determining HAP emissions reported.~~

...

#### Change 2

IDEM has decided not to renew air permitting contractual obligations for the City of Indianapolis. Therefore, all references to the City of Indianapolis Office of Environmental Services for reporting requirements and as the issuing authority have been removed from the FESOP Minor Permit Revision MPR097-27070-00063.

<b>Conclusion and Recommendation</b>
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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 October 3, 2008.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Minor Permit Revision No. MPR097-27070-00063. The staff recommends to the Commissioner that this FESOP Minor Permit Revision be approved.

<b>IDEM, OAQ Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Iryn Calilung at the Indiana Department of Environmental Management, Permits Branch, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5692 or at [icalilu@idem.in.gov](mailto:icalilu@idem.in.gov).
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov).

**Appendix A: Emissions Calculations**

**September 2007 Stack Test Results**

**Company Name:** Interstate Castings

**Address City IN Zip:** 3823 Massachusetts Avenue, Indianapolis, IN 46218

**Operating Permit No.:** F097-18317-00063

**Minor Permit Revision No.:** MPR097-27070-00063

**Reviewer:** M. Caraher

**Date:** November 17, 2008

Process	Stack	Total VOC	Metal Throughput	Total VOC	Production Limit	PTE VOC at	Permit Limit
		from Stack Test	During Test	from Stack Test	in 18317 permit	Production limit	Organic HAPs
		(lb/hr)	(tons/hr)	(lb/ton)	(tons/yr)	(tons/yr)	(tons/yr)
pouring/cooling	V17	2.53	3.56	0.71	20,000	7.11	1.94
pouring/cooling	V18	1.64	3.56	0.46	20,000	4.61	
shakeout	Stack A	0.12	3.37	0.04	20,000	0.36	
	totals	4.29		1.21		12.07	

Organic HAPs emissions are calculated based on the organic HAP content of the binder materials used in Airstet Cores.

	Iron poured	Cores Used	Oil Resin	Iso Resin	Shell Resin	Total Resin Used	Percent Oil Resin	Percent Iso Resin	Percent Shell Resin
	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)				
Test 1	8400	200.64	1.564	1.459					
Test 2	7200	649.51	1.03	6.652					
Test 3	9600	228.13	4.674	0.274					
Test 4	9600	924.98	11.562	1.518	7.107				
Test 5	7200	962.61	1.159	8.072	4.46				
Test 6	6600	505.45		2.458	7.05				
Totals	48,600	3,471	19.99	20.43	18.62	59.04	33.86%	34.61%	31.53%

Process	Stack	Total VOC	VOC Content	Organic HAP Content	VOC Content	Organic HAP Content	VOC Content	Organic HAP Content	Organic HAP	Permit Limit
		from Stack Test	of Oil Binder	of Oil Binder	of Iso Binder	of Iso Binder	of Shell Binder	of Shell Binder	Emissions	Organic HAPs
		(lb/hr)	(%)	(%)	(%)	(%)	(%)	(%)	(lbs/hr)	(tons/yr)
pouring/cooling	V17	2.53	50.00%	0.00%	78.36%	1.36%	0.0125%	0.0096%	0.62	1.94
pouring/cooling	V18	1.64							0.40	
shakeout	Stack A	0.12							0.03	
	total	4.29							1.06	

Organic HAP Emissions (lbs/hr) = VOC from Stack Test (lb/hr) x Percent ISO Resin used x ISO HAP content/ISO VOC content + VOC from Stack Test (lb/hr) x Percent Shell Resin used x Shell Resin HAP content/Shell Resin VOC content

Stack	Organic HAP	Metal Throughput	Total Organic HAPs	Production Limit	PTE Organic HAPs
	Emissions	During Test	from Stack Test	in 18317 permit	at Production Limit
		(lbs/hr)	(tons/hr)	(tons/yr)	(tons/yr)
V17	0.62	3.56	0.18	20,000	1.75
V18	0.40	3.56	0.11	20,000	1.14
Stack A	0.03	3.37	0.01	20,000	0.09
total	1.06		0.30	20,000	2.98

Appendix A: Emissions Calculations

Summary of HAPs Emissions

Company Name: Interstate Castings  
 Address City IN Zip: 3823 Massachusetts Avenue, Indianapolis, IN 46218  
 Operating Permit No.: F097-18317-00063  
 Minor Permit Revision No.: MPR097-27070-00063  
 Reviewer: M. Caraher  
 Date: November 17, 2008

	18317 Permit Limit Metallic HAPs (tons/yr)	18317 Permit Limit Organic HAPs (tons/yr)	Metallic HAPs Stack Test Results (lb/ton metal)	Organic HAPs Stack Test Results (lb/ton metal)	18317 Permit Limit (tons metal/yr)	Metallic HAPs Emissions Based on Test Results (tons/yr)	Organic HAPs Emissions Based on Test Results (tons/yr)
Furnaces	2.4		0.0103		20000	0.103	
Charging	1.01		0.00271		20000	0.0271	
V17 pouring/cooling			0.001875	0.18	20000	0.01875	1.75
V18 pouring/cooling	1.77		0.00122	0.11	20000	0.0122	1.14
shakeout/sand handling		1.94					
shotblasting	2.39		0.000415	0.01	20000	0.00415	0.09
air set core making		0.29925					
shell core making		0.01146					
oil core making		0					

Note: shakeout, sand handling, and shotblasting all exhaust to Stack A.

	Total Metallic HAPs Emissions (tons/yr)	Total Organic HAPs Emissions (tons/yr)	Total HAPs Emissions (tons/yr)
Furnaces	0.103		0.103
Charging	0.0271		0.0271
V17 pouring/cooling	0.01875	1.75	1.77
V18 pouring/cooling	0.0122	1.14	1.15
shakeout/sand handling			0.09
shotblasting	0.00415	0.09	0.00
air set core making	0	0.29925	0.30
shell core making	0	0.01146	0.01
oil core making	0	0	0.00
Totals	0.17	3.29	3.46

The summary above shows plantwide emissions, using stack test results for all processes where stack test results are available. This summary assumes that only a portion of the VOC emissions from pouring/cooling/shakeout are organic HAPs, as calculated on page 1.

	Total Metallic HAPs Emissions (tons/yr)	Total Organic HAPs Emissions (tons/yr)	Total HAPs Emissions (tons/yr)
Furnaces	2.4		2.4
Charging	1.01		1.01
V17 pouring/cooling		1.75	3.52
V18 pouring/cooling	1.77	1.14	1.14
shakeout/sand handling			0.09
shotblasting	2.4	0.09	2.49
air set core making	0	0.29925	0.30
shell core making	0	0.01146	0.01
oil core making	0	0	0.00
Totals	7.58	3.29	10.87

The summary above shows plantwide emissions, using stack test results for organic HAPs from pouring/cooling/shakeout (p/c/s), and using permitted emission limits for other processes. This summary assumes that only a portion of the VOC emissions from p/c/s are organic HAPs, as calculated on page 1.

Appendix A: Emissions Calculations

Summary of HAPs Emissions

Company Name: Interstate Castings  
 Address City IN Zip: 3823 Massachusetts Avenue, Indianapolis, IN 46218  
 Operating Permit No.: F097-18317-00063  
 Minor Permit Revision No.: MPR097-27070-00063  
 Reviewer: M. Caraher  
 Date: November 17, 2008

If we assume that all VOC from pouring/cooling/shakeout is combined organic HAPs:			
	Total Metallic HAPs Emissions	Total Organic HAPs Emissions	Total HAPs Emissions
	(tons/yr)	(tons/yr)	(tons/yr)
Furnaces	0.103	0	0.103
Charging	0.0271	0	0.03
V17 pouring/cooling	0.01875	12.1	12.09
V18 pouring/cooling	0.0122		0.01
shakeout/sand handling	0.00415		0.00
shotblasting	0	0	0.00
air set core making	0	0.29925	0.30
shell core making	0	0.01146	0.01
oil core making	0	0	0.00
Totals	0.17	12.38	12.55

The summary above shows plantwide emissions, using VOC stack test results for pouring, cooling and shakeout and assumes all VOC from p/c/s are organic HAPs. This summary uses stack test results for all other processes, where available.

If we assume that all VOC from pouring/cooling/shakeout is organic HAPs:			
	Total Metallic HAPs Emissions	Total Organic HAPs Emissions	Total HAPs Emissions
	(tons/yr)	(tons/yr)	(tons/yr)
Furnaces	2.4	0	2.4
Charging	1.01	0	1.01
V17 pouring/cooling	1.77	12.1	13.84
V18 pouring/cooling	0		0.00
shakeout/sand handling	2.4		2.40
shotblasting	0	0	0.00
air set core making	0	0.29925	0.30
shell core making	0	0.01146	0.01
oil core making	0	0	0.00
Totals	7.58	12.38	19.96

The summary above shows plantwide emissions, using VOC stack test results for pouring, cooling and shakeout and assumes all VOC from p/c/s are organic HAPs. This summary uses permitted emission limits for other processes.

Total unlimited PTE Organic HAP from F097-18317-00063 pouring/cooling/shakeout TSD App A page 15: 21.27 tons/yr  
 Revised Total unlimited PTE VOC/Organic HAP for FESOP Revision 097-27020-00063 for pouring/cooling/shakeout: 26.50 tons/yr  
 Revised Total VOC/Organic HAP for FESOP Revision 097-27020-00063 for pouring/cooling/shakeout: 12.07 tons/yr

	Benzene	Phenol	Toluene	Formaldehyde	HCN
Weight percent individual HAP from F097-18317-00063 pouring/cooling/shakeout total; TSD App A page 15	14.60%	0.40%	27.40%	0.20%	2.30%
Calculated individual HAP from revised total unlimited PTE VOC/Organic HAP from pouring cooling/shakeout (tons/yr)	3.87	0.11	7.26	0.05	0.61
Calculated individual HAP from revised total VOC/Organic HAP from pouring cooling/shakeout (tons/yr)	1.76	0.05	3.31	0.02	0.28

Methodology

Revised Total unlimited PTE VOC/Organic HAP for FESOP Revision 097-27020-00063 for pouring/cooling/shakeout = 1.21 lbs/ton x 5 tons/hr x 8760 hrs/yr x ton/2000 lbs  
 Revised Total VOC/Organic HAP for FESOP Revision 097-27020-00063 for pouring/cooling/shakeout = 1.21 lbs/ton x 20,000 tons/yr x 8760 hrs/yr x ton/2000 lbs  
 Calculated unlimited PTE individual HAP = percent individual HAP from F097-18317-00063 pouring/cooling/shakeout x 26.50 tons/yr x ton/2000 lbs  
 Calculated limited individual HAP = percent individual HAP from F097-18317-00063 pouring/cooling/shakeout x 12.07 tons/yr x ton/2000 lbs

**Appendix A: Emissions Calculations**

**Sand Reclamation**

**Company Name: Interstate Castings**

**Address City IN Zip: 3823 Massachusetts Avenue, Indianapolis, IN 46218**

**Operating Permit No.: F097-18317-00063**

**Minor Permit Revision No.: MPR097-27070-00063**

**Reviewer: M. Caraher**

**Date: November 17, 2008**

Emission Unit	Control Device	Baghouse Outlet Grain Loading (gr/dscf)	Maximum Design Air Flow Rate (cfm)	Maximum Capacity (tons sand/hr)	Pollutant	Emission Factor (lb/ton sand)	Uncontrolled Emissions (tons/yr)	Controlled Emissions (lbs/hr)	Controlled Emissions (tons/yr)
mechanical sand reclamation system EU10	baghouse CE-D	0.01	10,000	12	PM	3.6	189.22	0.86	3.75
					PM10	0.54	28.38	0.86	3.75
					PM2.5	0.54	28.38	0.86	3.75
					VOC	0	0.00	0.00	0.00
					SO2	0	0.00	0.00	0.00
					NOx	0	0.00	0.00	0.00
CO	0	0.00	0.00	0.00					

**Methodology**

Emission Factors are from FIRE, SCC 30400350 (Sand Handling)

Uncontrolled Emissions (tons/yr) = Emission Factor (lbs/ton sand x tons sand/hr x 8760 hours/yr x ton/2000 lbs

Controlled Emissions (lbs/hr) = Baghouse outlet grain loading (gr/dscf) x design air flow rate (cfm) x 60 min/hr x lb/7000 gr

Controlled Emissions (tons/yr) = Baghouse outlet grain loading (gr/dscf) x design air flow rate (cfm) x 60 min/hr x 8760 hour/yr x lb/7000 gr x ton/2000 lbs