Via Certified Mail

June 19, 2007

Mr. Tom Atkins
Gartland Foundry Company
330 Grant Street
Terre Haute, IN 47802

Re: Permit No.: 167-24101-00007
First Significant Permit Revision to
FESOP Permit No.: F167-17828-00007

Dear Mr. Atkins;

Gartland Foundry Company was issued a Federally Enforceable State Operating Permit (FESOP), F167-17828-00007, on October 25, 2005, for a stationary grey and ductile iron foundry. A letter requesting changes to this permit was received on December 18, 2006. Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described:

The revision consists of:

1. Increase in the short term emission limit (pounds per ton) for PM and PM10 for the induction melting process;

2. A decrease in the allowable hours of operation on the Hosakawa baghouse (BH5); and

3. Various model changes to Sections B, C, and D of the FESOP.

The operating conditions applicable to these emission units are attached to this permit modification. All other conditions of the permit shall remain unchanged and in effect. Please find enclosed a revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Rob Harmon, 103 South 3rd Street, Terre Haute, Indiana 47807, or call at (812) 462-3433.

Sincerely,

George M. Needham
Director
Vigo County Air Pollution Control

Attachments
RKH
cc: Mindy Hahn, IDEM
Winter Bottum, IDEM
Charles J. Steahler - August Mack Environmental, Inc.

Federally Enforceable State Operating Permit

OFFICE OF AIR QUALITY
AND VIGO COUNTY AIR POLLUTION CONTROL

Gartland Foundry Company
330 Grant Street
Terre Haute, Indiana 47802

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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.

Operation Permit No.: F167-17828-00007	
Original Signed by George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: October 25, 2005 Expiration Date: October 25, 2010
First Significant Permit Revision No. 167-24101-00007	Pages Affected: Entire Permit
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: June 19, 2007 Expiration Date: October 25, 2010

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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) and Vigo County Air Pollution Control (VCAPC). The information describing the source contained in conditions A.1 through A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary grey and ductile iron foundry for the manufacture of iron castings.

Source Address:	330 Grant Street, Terre Haute, Indiana 47802
Mailing Address:	PO Box 1564, Terre Haute, IN
General Source Phone Number:	(812) 232-0226
SIC Code:	3321 (NAICS 331511)
County Location:	Vigo
Source Location Status:	Maintenance attainment for 8-hour ozone and sulfur dioxide standards Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) Two (2) Electric Induction Furnaces as follows:
1. EU130, consisting of induction furnace #3, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.
2. EU140, consisting of induction furnace #4, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.

(b) One (1) electrostatic spray booth, identified as prime paint line EU710, constructed in 1983, with a maximum capacity of 500 grey iron castings per hour, with dry filters for control of particulate matter overspray, and exhausting to stack SC-6.

(c) Sand handling systems including:
1. Sand Muller, identified as EU591, constructed in 1997, with a maximum capacity of 100 tons per hour, and sand conveyor, constructed in 1970, identified as EU592, using Hosakawa baghouse (BH5) for control, and exhausting to stack SC-5.
2. Casting shakeout, identified as EU570, constructed in 2001, with a maximum capacity of 80 tons of sand per hour and 18 tons of metal per hour, using a Wheelabrator-88 baghouse (BH3) for control, and exhausting to stack SC-4.
3. Mold making process including six (6) squeezer mold machines (EU520, constructed in 1902), three (3) rotolift mold machines (EU521, constructed in 1902), auto mold machine (EU530, constructed in 2000), and another auto mold

machine (EU531, constructed in 1993), utilizing no control, and exhausting to SU-INT6/7/8/13.

(d) One (1) Scrap/Charge Handling operation for the electric induction furnaces, identified as EU120, constructed in 1995, with a maximum capacity of 19 tons of metal per hour, and exhausting as fugitive emissions FG-1.

(e) Casting Finishing:

1. One (1) Spin Blast, identified as EU610, constructed in 1986, with a maximum capacity of 5 tons per hour of metal castings, using Wheelabrator-35 baghouse (BH2) for control and exhausting to stack SC-7.
2. One (1) Tumble Blast, identified as EU620, constructed in 1988, with a maximum capacity of 5 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
3. One (1) Tumbler, identified as EU630, constructed in 1989, with a maximum capacity of 1 ton per hour of metal castings using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
4. Four (4) Snag Grinders, identified as EU640(2 constructed in 1975, 1 in 1985, and 1 in 1991), each with a maximum capacity of 2 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
5. Six (6) self-contained finish grinders, identified as EU650, constructed in 1990, each with a maximum capacity of 2 tons per hour of metal castings, with downdraft tables using baffles for control and exhausting to general ventilation.

(f) Core making systems including:

1. Three (3) Shell Core Machines, identified as EU320, EU321, and EU322, constructed in 1979, each with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation;
2. One (1) Oil Core Making Process, identified as EU410, constructed in 1902, utilizing a mixer and associated core boxes with a maximum capacity of 0.25 tons per hour of sand, utilizing no controls and exhausting to general ventilation; and
3. Core Wash Process, identified as EU730, constructed in 1902, with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation.

(g) Magnesium Treatment (Inoculation), with a maximum capacity of 10 tons of metal per hour, identified as EU150, constructed in 1986, utilizing a closed ladle, and exhausting to general ventilation.

(h) Pouring, identified as EU540, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Pouring operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum pouring capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

(i) Cooling, identified as EU550, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Cooling operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum cooling capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

(j) Isocure Core making systems including:

1. Isocure Core Machine, identified as EU 222, constructed in 1994, fed by mixer 2, with a maximum capacity of 0.525 tons of sand/resin mixture per hour, a

maximum of 21 pounds of resin per hour, and a maximum of 3.15 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.

2. Cold Box (Isocure) Core Machine, identified as CBCM-1, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin mixture per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
3. Cold Box (Isocure) Core Machine, identified as CBCM-2, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
4. Sand Mixer, identified as mixer 2, constructed in 2003, with a maximum capacity of 2.525 tons of sand/resin mixture per hour.
5. Sand heater, constructed in 1978
6. Sand Silo, with a maximum capacity of 165 tons of sand, loaded via pneumatic conveying system including an integral bin vent, utilizing no control.

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:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) BTU per hour.

(b) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.

(d) Closed loop heating and cooling systems.

(e) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

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

(g) Heat exchanger cleaning and repair.

(h) Paved and unpaved roads and parking lots with public access.

(i) 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.

(j) Filter or coalescer media change out.

(k) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C.

(l) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(m) Other activities or categories not previously identified with emissions equal to or less than specific thresholds:

1. Unit 780 - Storage Piles
2. One (1) Turntable, identified as EU580, with a maximum capacity of 8.0 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control, and exhausting to stack SC-5.

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, F167-17828-00007, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ and VCAPC, 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]

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]

(a) 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 VCAPC, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by VCAPC.

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

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

(a) The Permittee shall furnish to IDEM, OAQ and VCAPC, within a reasonable time, any information that IDEM, OAQ and VCAPC 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 and VCAPC copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ or VCAPC, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, 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.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

(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 and VCAPC, 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, as IDEM, OAQ and VCAPC may require to determine the compliance status of the source.

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

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and VCAPC 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and VCAPC. IDEM, OAQ and VCAPC may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.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 describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Vigo County Air Pollution Control phone: (812) 462-3433; fax: (812) 462-3447

(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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC 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 and VCAPC 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]

(a) All terms and conditions of permits established prior to F167-17828-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(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)]

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)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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]

(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 and VCAPC 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 and VCAPC 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 and VCAPC at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and VCAPC 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)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and VCAPC and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

(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 and VCAPC 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 and VCAPC 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 and VCAPC 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]

(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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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

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

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

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

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the 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

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(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 and VCAPC in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(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]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2and 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][IC 13-30-3-1]

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, and VCAPC 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]

(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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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

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

B.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]

(a) The Permittee shall pay annual fees to IDEM, OAQ and VCAPC 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 and VCAPC 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

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

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

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

(a) Pursuant to 326 IAC 2-8:

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

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

C.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 forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.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]

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

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

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

C.6 Stack Height [326 IAC 1-7]

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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.8 Performance Testing [326 IAC 3-6]

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

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and VCAPC 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.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 "authorized 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.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

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

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.14 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; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][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 and VCAPC, 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 and VCAPC that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ and VCAPC may extend the retesting deadline.

(c) IDEM, OAQ and VCAPC reserve 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.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or VCAPC makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or VCAPC 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.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported.

This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

(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 and VCAPC 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) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

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

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

1. EU130, consisting of induction furnace #3, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.

2. EU140, consisting of induction furnace #4, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.

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

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

D.1.1 Housekeeping

Pursuant to OP-07-3321-03-95, the charge materials for electric induction furnaces #3 and #4 shall be stored inside a building. Also, visible emissions from any building opening shall not exceed 20% opacity, as determined by 40 CFR 60 Appendix A, Method 9 and 326 IAC 5-1.

D.1.2 Particulate Emissions [326 IAC 2-2] [326 IAC 2-8]

(a) Pursuant to Significant Source Modification 167-16913-00007, issued on June 3, 2003, the input of metal to the induction furnaces (EU130 and EU140 combined) shall be less than 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.

(b) The PM emissions from the induction furnaces (#3 and #4) shall be limited to 0.054 pounds per ton of metal melted.

(c) The PM10 emissions from the induction furnaces (#3 and #4) shall be limited to 0.286 pounds per ton of metal melted.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter (PM and PM10) for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.3 Particulate Emissions [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(e), the Permittee shall not allow or permit the discharge into the atmosphere any gases from the induction furnaces (#3 and #4) containing a particulate matter content greater than 0.07 grain per dry standard cubic foot.

D.1.4 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] [326 IAC 2-4.1]

The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the induction furnaces (#3 and #4) shall be limited to 0.02843 pounds per ton of metal melted. This limit (combined with others throughout this approval) is required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.2, the Permittee shall perform PM and PM10 testing on each Electric Induction Furnace utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

D.1.7 Particulate Matter (PM)

(a) Pursuant to OP-07-3321-03-95, issued on August 21, 1995, the baghouse for PM control shall be in operation and control emissions from the Electric Induction Furnaces #3 and #4 are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC 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.1.8 Visible Emissions Notations

(a) Visible emission notations of the Electric Induction Furnace stack (SC-2) exhaust 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.1.9 Parametric Monitoring

The Permittee shall record the pressure drop across the Steelcraft baghouse (BH1) used in conjunction with the Electric Induction Furnaces #3 and #4, at least once per day when either

Electric Induction Furnace is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.1.10 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 emissions unit. 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 baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the Electric Induction Furnace stack exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g., the process did not operate that day).

(c) To document compliance with Condition D.1.2, the Permittee shall maintain records of the weight of metal melted each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.1.2.

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

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2(a) 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

One (1) electrostatic spray booth, identified as prime paint line EU710, constructed in 1983, with a maximum capacity of 500 grey iron castings per hour, with dry filters for control of particulate matter overspray, and exhausting to stack SC-6.

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

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

The volatile organic compound (VOC) content of coating delivered to the applicator at Spray Booth EU710 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

D.2.2 Emission Minimization [326 IAC 8-2-9]

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.3 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the electrostatic spray booth (EU710) shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

D.2.4 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

Pursuant to Significant Source Modification 167-16913-00007, issued on June 3, 2003, and revised through this FESOP, the VOC input to the electrostatic spray booth (EU710) shall not exceed 39.9 tons per 12 consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of volatile organic compounds for this emission unit to less than the 40 tons per 12 consecutive month period significant level. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

D.2.5 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-8] [326 IAC 2-4.1]

The Xylene input to the electrostatic spray booth (EU710) shall not exceed 9.735 tons per 12 consecutive month period with compliance determined at the end of each month. Compliance with this limit makes 326 IAC 2-7 (Part 70 Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

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

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

Compliance Determination Requirements

D.2.7 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.2.1 and D.2.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the

coating manufacturer. However, IDEM, OAQ, and VCAPC reserve the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.8 Particulate Matter (PM)

The dry filters for PM overspray control from Spray Booth EU710 shall be in operation at all times when the spray booth is in operation and exhausting to the outside atmosphere.

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

D.2.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the spray booth stack (SC-6) while the spray booth is in operation. The Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.10 Record Keeping Requirements

(a) To document compliance with Condition D.2.1 and D.2.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The VOC content of each coating material and solvent used.
(2) The amount of coating material and solvent less water used on monthly basis.
  (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
(3) The cleanup solvent usage for each month;
(4) The total VOC usage for each month; and
(5) The weight of VOCs emitted for each compliance period.

(b) To document compliance with Condition D.2.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits and/or the HAP emission limits established in Condition D.2.5. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The HAP content of each coating material and solvent used.
(2) The amount of coating material and solvent less water used on monthly basis.
    (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
(3) The cleanup solvent usage for each month;
(4) The total HAP usage for each month; and
(5) The weight of HAPs emitted (by HAP) for each compliance period.

(c) To document compliance with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections.

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

D.2.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

1. Sand handling systems including:
   (a) Sand Muller, identified as EU591, constructed in 1997, with a maximum capacity of 100 tons per hour, and sand conveyor, constructed in 1970, identified as EU592, using Hosakawa baghouse (BH5) for control, and exhausting to stack SC-5.
   (b) Casting shakeout, identified as EU570, constructed in 2001, with a maximum capacity of 80 tons of sand per hour and 18 tons of metal per hour, using a Wheelabrator-88 baghouse (BH3) for control, and exhausting to stack SC-4.
   (c) Mold making process including six (6) squeezer mold machines (EU520, constructed in 1902), three (3) rotolift mold machines (EU521, constructed in 1902), auto mold machine (EU530, constructed in 2000), and another auto mold machine (EU531, constructed in 1993), utilizing no control, and exhausting to SU-INT6/7/8/13.

2. One (1) Scrap/Charge Handling operation for the electric induction furnaces, identified as EU120, constructed in 1995, with a maximum capacity of 19 tons of metal per hour, and exhausting as fugitive emissions FG-1.

3. Casting Finishing:
   (a) One (1) Spin Blast, identified as EU610, constructed in 1986, with a maximum capacity of 5 tons per hour of metal castings, using Wheelbrator-35 baghouse (BH2) for control and exhausting to stack SC-7.
   (b) One (1) Tumble Blast, identified as EU620, constructed in 1988, with a maximum capacity of 5 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
   (c) One (1) Tumbler, identified as EU630, constructed in 1989, with a maximum capacity of 1 ton per hour of metal castings using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
   (d) Four (4) Snag Grinders, identified as EU640 (2 constructed in 1975, 1 in 1985, and 1 in 1991), each with a maximum capacity of 2 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
   (e) Six (6) self-contained finish grinders, identified as EU650, constructed in 1990, each with a maximum capacity of 2 tons per hour of metal castings, with downdraft tables using baffles for control and exhausting to general ventilation.

4. Core making systems including:
   (a) Three (3) Shell Core Machines, identified as EU320, EU321, and EU322, constructed in 1979, each with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation;
   (b) One (1) Oil Core Making Process, identified as EU410, constructed in 1902, utilizing a mixer and associated core boxes with a maximum capacity of 0.25 tons per hour of sand, utilizing no controls and exhausting to general ventilation; and
   (c) Core Wash Process, identified as EU730, constructed in 1902, with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation.

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

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

D.3.1 Hosakawa baghouse (BH5) Emissions [326 IAC 2-2] [326 IAC 2-8]

(a) The PM emissions from Hosakawa baghouse (BH5) shall be limited to 8.9 pounds per hour.

(b) The PM10 emissions from Hosakawa baghouse (BH5) shall be limited to 1.25 pounds per hour.

(c) The units exhausting to the Hosakawa baghouse (BH5) shall not operate more than a combined total of 6,380 hours per 12 consecutive month period with compliance determined at the end of each month. Having two (2) or more units, that exhaust to the Hosakawa baghouse (BH5), operating in the same hour will only count as one (1) hour towards determining compliance with this limitation.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

D.3.2 Particulate Matter Limitation (PM) [326 IAC 6.5-1-2]

The Sand Muller (EU591); Casting shakeout (EU570); Mold making process (mold making muller (EU510), six (6) squeezer mold machines (EU520), four (4) rotolift mold machines (EU521), and two auto mold machines (EU530 and EU531)); Scrap/Charge Handling operation for the electric induction furnaces (EU120); Casting Finishing (Spin Blast (EU610), Tumble Blast (EU620), Tumbler (EU630), Snag Grinding (EU640), and Finish Grinding (EU650)); Core making systems (Shell Core Machines (EU320, EU321, and EU322), Oil Core Making Process (EU410), and Core Wash Process (EU730)) shall each not emit particulate matter (PM) in excess of 0.03 grains per dry standard cubic foot.

D.3.3 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8][326 IAC 8-1-6]

(a) Casting Shakeout System

1. The throughput of metal to the casting shakeout system shall not exceed 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the casting shakeout system shall be limited to 0.064 pound per ton of metal.
3. The PM10 emissions from the casting shakeout system shall be limited to 0.045 pound per ton of metal.
4. The VOC emissions from the casting shakeout system shall be limited to 1.2 pounds per ton of metal.

Compliance with this limit makes 326 IAC 8-1-6 (General VOC Reduction) not applicable.

(b) Mold Making Process (squeezer mold machines (EU520), rotolift mold machines (EU521), Sinto auto mold machine (EU530), and B&P auto mold machine (EU531))

1. The throughput of sand to the mold making process shall not exceed 41,400 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the mold making process shall be limited to 0.9 pound per ton of sand.
3. The PM10 emissions from the mold making process shall be limited to 0.9 pound per ton of sand.

(c) Scrap/Charge Handling System

1. The throughput of metal to the scrap/charge handling system shall not exceed 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the scrap/charge handling system shall be limited to 0.6 pound per ton of metal.
3. The PM10 emissions from the scrap/charge handling system shall be limited to 0.36 pound per ton of metal.

(d) Sandblast System - Spinblast

1. The input of metal to be cleaned in the sandblast system (spinblast, EU610) shall be less than 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the sandblast systems shall be limited to 0.34 pound per ton of metal.
3. The PM10 emissions from the sandblast systems shall be limited to 0.034 pound per ton of metal.

(e) Finish Grinders

1. The input of metal processed in the finish grinders (EU650 combined) shall be less than 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the finish grinders shall be limited to 0.0020 pound per ton metal.
3. The PM10 emissions from the finish grinders shall be limited to 0.0009 pound per ton metal.

(f) Shell Core Making

1. The input of core sand to the shell core making process shall be less than 1,000 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the shell core making process shall be limited to 0.9 pound per ton sand.
3. The PM10 emissions from the shell core making process shall be limited to 0.9 pound per ton sand.
4. The VOC emissions from the shell core making process shall be limited to 0.254 pound per ton sand.

(g) Oil Core Making

1. The input of core sand to the oil core making process shall be less than 1,000 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from the oil core making process shall be limited to 0.9 pound per ton sand.
3. The PM10 emissions from the oil core making process shall be limited to 0.9 pound per ton sand.
4. The VOC emissions from the oil core making process shall be limited to 3.05 pound per ton sand.

(h) Core Wash

1. The VOC emissions from the core wash process shall be limited to 5.2 pounds per ton core material.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

D.3.4 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-8] [326 IAC 2-4.1]

(a) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the Casting Shakeout System shall be limited to 0.002 pounds per ton of metal.

(b) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the Sandblast Systems shall be limited to 0.0029 pounds per ton of metal.

These limits (combined with others throughout this approval) are required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.3.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.3.6 Particulate Matter (PM)

(a) The Hosakawa baghouse (BH5) for PM control from the sand muller, sand conveyor, tumble blast, tumbler, and snag grinder shall be in operation at all times when the sand muller, sand conveyor, tumbler blast, tumbler, or snag grinder is in operation.

(b) The Wheelabrator-88 baghouse (BH3) for PM control from the casting shakeout shall be in operation at all times when the casting shakeout system is in operation.

(c) The Wheelabrator-35 baghouse (BH2) for PM control from the spin blast shall be in operation at all times when the spin blast is in operation.

(d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC 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.3.7 Visible Emissions Notations

(a) Visible emission notations of each of the three baghouse (BH2, BH3, and BH5) exhausts 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.3.8 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Hosakawa baghouse used in conjunction with the sand muller and sand conveyor (BH5), at least once per day when the sand muller and sand conveyor are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the Wheelabrator-88 baghouse used in conjunction with casting shakeout (BH3), at least once per day when the casting shakeout system is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee shall record the pressure drop across the Wheelabrator-35 baghouse used in conjunction with the spin blast (BH2), at least once per day when the spin blast is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.3.9 Broken Bag or Failure Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 emissions unit. 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 baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.7, the Permittee shall maintain records of visible emission notations taken each day of the baghouses BH2, BH3 and BH5 stack 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 (e.g., the process did not operate that day).

(b) To document compliance with Condition D.3.8, the Permittee shall maintain records once per day of the total pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g., the process did not operate that day).

(c) To document compliance with Condition D.3.3, the Permittee shall maintain records of the weight of metal throughput to each process each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.3.3.

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

D.3.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.3 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

1. Magnesium Treatment (Inoculation), with a maximum capacity of 10 tons of metal per hour, identified as EU150, constructed in 1986, utilizing a closed ladle, and exhausting to general ventilation.

2. Pouring, identified as EU540, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Pouring operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum pouring capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

3. Cooling, identified as EU550, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Cooling operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum cooling capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

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

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

D.4.1 Particulate Matter Limitation (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2, each of the facilities listed above (Magnesium Treatment, Pouring, and Cooling) shall not emit particulate matter (PM) in excess of 0.03 grains per dry standard cubic foot.

D.4.2 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

(a) Magnesium Treatment (Inoculation)
1. The input of metal to the Magnesium Treatment (EU150) shall be less than 1,970 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from Magnesium Treatment shall be limited to 1.8 pounds per ton of metal.
3. The PM10 emissions from Magnesium Treatment shall be limited to 1.8 pounds per ton of metal.

(b) Pouring
1. The PM emissions from Pouring shall be limited to 4.20 pounds per ton of metal.
2. The PM10 emissions from Pouring shall be limited to 2.06 pounds per ton of metal.
3. The VOC emissions from Pouring and Cooling shall be limited to 0.14 pounds per ton of metal.

(c) Cooling
1. The PM emissions from Cooling shall be limited to 1.40 pounds per ton of metal.
2. The PM10 emissions from Cooling shall be limited to 1.40 pounds per ton of metal.

(d) Pouring, Cooling, and Casting Shakeout
The CO emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 6.0 pounds per ton of metal melted.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter and VOC for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

D.4.3 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] [326 IAC 2-4.1]

(a) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from Magnesium Treatment (Inoculation) shall be limited to 0.05684 pounds per ton of metal.

(b) Pouring, Cooling, and Casting Shakeout

1. The Phenol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0718 pounds per ton of metal.
2. The Benzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.1643 pounds per ton of metal.
3. The Analine emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0366 pounds per ton of metal.
4. The o-Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0185 pounds per ton of metal.
5. The Naphthalene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0048 pounds per ton of metal.
6. The N,N - Dimethylaniline emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0085 pounds per ton of metal.
7. The Toluene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0647 pounds per ton of metal.
8. The m,p -Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0059 pounds per ton of metal.
9. The m,p -Xylene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0044 pounds per ton of metal.
10. The Xylene (Total) emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0383 pounds per ton of metal.
11. The Acetaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0100 pounds per ton of metal.
12. The Ethylbenzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.
13. The Formaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0011 pounds per ton of metal.
14. The Hexane emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0046 pounds per ton of metal.
15. The Other HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.
16. The Total Organic HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.4475 pounds per ton of metal.

These limits (combined with others throughout this approval) are required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.4.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

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

D.4.5 Record Keeping Requirements

(a) To document compliance with Condition D.4.2, the Permittee shall maintain records of the weight of metal inoculated each month. The records shall be complete and sufficient to establish compliance with the metal throughput limitation in Condition D.4.2.

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

D.4.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2 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.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Isocure Core making systems including:

1. Isocure Core Machine, identified as EU 222, constructed in 1994, fed by mixer 2, with a maximum capacity of 0.525 tons of sand/resin mixture per hour, a maximum of 21 pounds of resin per hour, and a maximum of 3.15 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
2. Cold Box (Isocure) Core Machine, identified as CBCM-1, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin mixture per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
3. Cold Box (Isocure) Core Machine, identified as CBCM-2, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin mixture per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
4. Sand Mixer, identified as mixer 2, constructed in 2003, with a maximum capacity of 2.525 tons of sand/resin mixture per hour.
5. Sand heater, constructed in 1978.
6. Sand Silo, with a maximum capacity of 165 tons of sand, loaded via pneumatic conveying system including an integral bin vent, utilizing no control.

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

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

D.5.1 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) particulate matter emissions from each emission unit shall not exceed 0.03 grain per dry standard cubic foot.

D.5.2 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

(a) The production of cores in the isocure machines (EU222, CBCM-1 and CBCM-2 combined) shall be less than 1,100 tons per 12 consecutive month period with compliance determined at the end of each month.

(b) The VOC emissions, including triethylamine (TEA), from each of the isocure machines (EU222, CBCM-1 and CBCM-2) shall be limited to 0.94 pounds per ton.

(c) The PM emissions from the sand silo shall be limited to 0.072 pounds per ton.

(d) The PM10 emissions from the sand silo shall be limited to 0.011 pounds per ton.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

D.5.3 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] [326 IAC 2-4.1]

Pursuant to Significant Permit Modification 167-17187-0007 issued on July 10, 2003, the triethylamine (TEA) emissions from the Isocure systems shall be limited to 0.12 pounds per ton.

Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.5.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.5.5 Triethylamine Control [326 IAC 2-2][326 IAC 2-4.1]

Pursuant to Significant Permit Modification 167-17187-00007 (issued on July 10, 2003) the acid scrubber shall be in operation at all times any of the associated Cold Box Core Machines (EU222, Cold Box Core Machine 1, and Cold Box Core Machine 2) are in operation.

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate the removal efficiency of the acid scrubber for triethylamine (TEA) and the emission rate of total VOC (including TEA), the Permittee shall perform testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.5.7 Bin Vent Monitoring

(a) Visible emissions notations of the bin vent exhaust shall be performed during each time the sand silo is loaded. A trained employee will record whether emissions are normal or abnormal.
  (1) 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.
  (2) 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.
  (3) 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.
  (4) 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.

(b) The Permittee shall quarterly inspect the bin vent for proper operation and to ensure the filters are in good condition. The Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.5.8 Acid Scrubber Monitoring

(a) The Permittee shall record the scrubbing liquor flow rate through the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the flow rate through the scrubber is below the minimum 10 gallons per minute or a minimum established during the latest stack test, the

Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The Permittee shall record the scrubbing liquid pH in the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the scrubbing liquid pH is above the maximum 4.5 or a maximum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee shall record the pressure drop across the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

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

D.5.9 Record Keeping Requirements

(a) To document compliance with Conditions D.5.7 and D.5.8, the Permittee shall maintain a log of sand silo loading times, visible emission notations for sand silo loading, quarterly inspections of the bin vent, pressure drop across the acid scrubber, scrubbing liquid flow rate, and scrubbing liquid pH. The Permittee shall include in its daily record when a visible emission notation, a pressure drop reading, a scrubber liquid flow rate reading, or a scrubbing liquid pH reading is not taken and the reason for the lack of a visible emission notation, a pressure drop reading, a scrubber liquid flow rate reading, or a scrubbing liquid pH reading (e.g., the process did not operate that day).

(b) To document compliance with Condition D.5.3, the Permittee shall maintain records of the weight of cores produced each month. The records shall be complete and sufficient to establish compliance with the core production limitation in Condition D.5.2.

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

D.5.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.2 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
and
VIGO COUNTY AIR POLLUTION CONTROL

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, IN
FESOP Permit No.: F167-17828-00007

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178 Fax: 317-233-6865
and
Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807
Phone: 812-462-3433 Fax: 812-462-3447

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, IN
FESOP Permit No.: F167-17828-00007

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) and Vigo County Air Pollution Control (VCAPC), within four (**4**) business hours (IDEM: 1-800-451-6027 or 317-233-0178, ask for Compliance Section; VCAPC 812-462-3433); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (IDEM Facsimile Number: 317-233-6865 and VCAPC Facsimile Number: 812-462-3447), and follow the other requirements of 326 IAC 2-7-16

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Induction Furnaces (EU130 and EU140)
Parameter: combined metal input
Limit: 13,800 tons (combined) per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Scrap/Charge Handling
Parameter: total metal input
Limit: 13,800 tons (combined) per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Shell Core Making and Oil Core Making
Parameter: sand input
Limit: 1,000 tons (each) per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

Month	Oil Core (tons produced)			Shell Core (tons produced)		
	This Month	Previous 11 Months	12 Month Total	This Month	Previous 11 Months	12 Month Total
Month 1						
Month 2						
Month 3						

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Magnesium Treatment
Parameter: Metal Treated
Limit: 1,970 tons of metal per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Mold Making Process (squeezer mold machines (EU520), rotolift mold machines (EU521), Sinto auto mold machine (EU530), and B&P auto mold machine (EU531))
Parameter: combined sand input
Limit: 41,400 tons (combined) per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Casting Shakeout
Parameter: Metal Processed
Limit: 13,800 tons of metal per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Sandblast System (EU610)
Parameter: Metal Cleaned
Limit: 13,800 tons of metal per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Finish Grinders (EU650)
Parameter: Metal Processed
Limit: 13,800 tons of metal per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Isocure Core Making
Parameter: Core Production
Limit: 1100 tons per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Hosakawa baghouse (BH5) operation
Parameter: hours of operation
Limit: 6,380 hours per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Electrostatic Spray Booth
Parameter: VOC Input
Limit: 39.9 tons per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL

FESOP Quarterly Report

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, Indiana 47808
FESOP No.: F167-17828-00007
Facility: Electrostatic Paint Booth
Parameter: HAP Input
Limit: Shall not exceed 9.735 tons of Xylene per 12 consecutive month period with compliance determined at the end of each month

YEAR:_____

Month	Xylene Use (tons)		
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and VCAPC
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Gartland Foundry Company
Source Address: 330 Grant Street, Terre Haute, Indiana 47802
Mailing Address: PO Box 1564, Terre Haute, IN
FESOP Permit No.: F167-17828-00007

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

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ANo deviations occurred this reporting period@.

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality
And
Vigo County Air Pollution Control

Addendum to the
Significant Permit Revision for a
Federally Enforceable State Operating Permit (FESOP)

Source Name:	**Gartland Foundry Company**
Source Location:	**330 Grant Street, Terre Haute, Indiana 47802**
County:	**Vigo County**
SIC Code:	**3321 (NAICS 331511)**
Operation Permit No.:	**F167-17828-00007**
Operational Permit Issuance Date:	**October 25, 2005**
Permit Modification No.:	**167-24101-00007**
Permit Reviewer:	**Rob Harmon**

On April 26, 2007, the Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) had a notice published in the Terre Haute Tribune Star, Terre Haute Indiana, stating that Gartland Foundry Company had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to modify existing permit limitations. The notice also stated that OAQ and VCAPC proposed to issue a permit modification for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 24, 2007, August Mack Environmental, Inc. (on behalf of Gartland Foundry Company) submitted comments on the proposed FESOP Significant Permit Revision. The summary of the comments is as follows:

Comment #1:
They requested the IDEM mailing addresses throughout the permit be updated to reflect the recent changes.

Response to Comment #1:
The addresses have been revised as needed. The following changes were made:

In Condition B.9(a):

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 Condition B.11(a):

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 Condition B.12(b)(5):

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 Condition B.15(a):

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

In Condition B.17(a):

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

In Condition B.18(b):

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

In Condition B.19(a)(4):

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

In Condition B.22(b):

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

In Condition C.7(d):

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

In Condition C.8(a):

> 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

In Condition C.10:

> 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 Condition C.17(b):

> 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

In the header of the Emergency Occurrence Form:

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

Comment #2:
They requested a clarification on stack testing timelines. The initial FESOP specified testing based on its issuance date, and those timelines should not be altered by this Permit Revision.

Response to Comment #2:
The changes have been made to clarify the testing requirement as requested. Since the test was actually conducted on September 7, 2006, it must now be repeated by September 7, 2011 (5 years later). Condition D.1.6 has been changed as follows:

> D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]
>
> ~~During the period between 6 and 12 months after the issuance of this approval, in~~ **In** order to demonstrate compliance with Condition D.1.2, the Permittee shall perform PM and PM10 testing on each Electric Induction Furnace utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

The changes have been made to clarify the testing requirement as requested. Since the test was actually conducted on September 8, 2006, it must now be repeated by September 8, 2011 (5 years later). Condition D.5.6 has been changed as follows:

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~During the period between 6 and 12 months after issuance of this approval, in~~ **In** order to demonstrate the removal efficiency of the acid scrubber for triethylamine (TEA) and the emission rate of total VOC (including TEA), the Permittee shall perform testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Additionally, the following changes have been made as a result of further IDEM and VCAPC review:

One of the paragraphs on the cover page contained an improper rule cite to 326 IAC 2-7 instead of 326 IAC 2-8. That paragraph has been modified as follows:

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC ~~2-7~~ **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.

A spelling error was corrected in C.1, also some clarification regarding the PSD status was added. The Condition now reads:

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

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

(a) Pursuant to 326 IAC 2-8:

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

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

An additional comma was required in Condition C.11 for clarity. The Condition has been modified as follows:

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

A spelling error was corrected in C.15(b). The Condition now reads:

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

A clarification on 326 IAC 2-4.1 applicability was added to Condition D.1.4, Condition D.2.5, Condition D.3.4, Condition D.4.3, and Condition D.5.3. The Conditions now read:

D.1.4 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] **[326 IAC 2-4.1]**

The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the induction furnaces (#3 and #4) shall be limited to 0.02843 pounds per ton of metal melted. This limit (combined with others throughout this approval) is required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable.

D.2.5 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-8] **[326 IAC 2-4.1]**

The Xylene input to the electrostatic spray booth (EU710) shall not exceed 9.735 tons per 12 consecutive month period with compliance determined at the end of each month. Compliance with this limit makes 326 IAC 2-7 (Part 70 Program) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable.

D.3.4 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-8] **[326 IAC 2-4.1]**

(a) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the Casting Shakeout System shall be limited to 0.002 pounds per ton of metal.

(b) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from the Sandblast Systems shall be limited to 0.0029 pounds per ton of metal.

These limits (combined with others throughout this approval) are required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable.

D.4.3 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] **[326 IAC 2-4.1]**

(a) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from

Magnesium Treatment (Inoculation) shall be limited to 0.05684 pounds per ton of metal.

(b) Pouring, Cooling, and Casting Shakeout

1. The Phenol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0718 pounds per ton of metal.
2. The Benzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.1643 pounds per ton of metal.
3. The Analine emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0366 pounds per ton of metal.
4. The o-Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0185 pounds per ton of metal.
5. The Naphthalene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0048 pounds per ton of metal.
6. The N,N - Dimethylaniline emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0085 pounds per ton of metal.
7. The Toluene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0647 pounds per ton of metal.
8. The m,p -Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0059 pounds per ton of metal.
9. The m,p -Xylene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0044 pounds per ton of metal.
10. The Xylene (Total) emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0383 pounds per ton of metal.
11. The Acetaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0100 pounds per ton of metal.
12. The Ethylbenzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.
13. The Formaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0011 pounds per ton of metal.
14. The Hexane emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0046 pounds per ton of metal.
15. The Other HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.
16. The Total Organic HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.4475 pounds per ton of metal.

These limits (combined with others throughout this approval) are required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable.

D.5.3 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8] **[326 IAC 2-4.1]**

Pursuant to Significant Permit Modification 167-17187-0007 issued on July 10, 2003, the triethylamine (TEA) emissions from the Isocure systems shall be limited to 0.12 pounds per ton. **Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.**

A clarification was added to Condition D.1.7 and Condition D.3.6 relating to bag failure. The Conditions now read:

D.1.7 Particulate Matter (PM)

(a) Pursuant to OP-07-3321-03-95, issued on August 21, 1995, the baghouse for PM control shall be in operation and control emissions from the Electric Induction Furnaces #3 and #4 are in operation.

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

D.3.6 Particulate Matter (PM)

(a) The Hosakawa baghouse (BH5) for PM control from the sand muller, sand conveyor, tumble blast, tumbler, and snag grinder shall be in operation at all times when the sand muller, sand conveyor, tumbler blast, tumbler, or snag grinder is in operation.

(b) The Wheelabrator-88 baghouse (BH3) for PM control from the casting shakeout shall be in operation at all times when the casting shakeout system is in operation.

(c) The Wheelabrator-35 baghouse (BH2) for PM control from the spin blast shall be in operation at all times when the spin blast is in operation.

(d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC 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.

Conditions D.1.8, D.1.9, D.3.7, and D.3.8 were revised to remove the term "when venting to the atmosphere" because the affected control devices always vent to the atmosphere. The Conditions now read:

D.1.8 Visible Emissions Notations

(a) Visible emission notations of the Electric Induction Furnace stack (SC-2) exhaust shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Parametric Monitoring

The Permittee shall record the ~~total~~ pressure drop across the Steelcraft baghouse (BH1) used in conjunction with the Electric Induction Furnaces #3 and #4, at least once per day when either Electric Induction Furnace is in operation ~~when venting to the atmosphere~~. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.3.7 Visible Emissions Notations

(a) Visible emission notations of each of the three baghouse (BH2, BH3, and BH5) exhausts shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C-Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.8 Parametric Monitoring

(a) The Permittee shall record the ~~total~~ pressure drop across the Hosakawa baghouse used in conjunction with the sand muller and sand conveyor (BH5), at least once per day when the sand muller and sand conveyor are in operation ~~and when venting to the atmosphere~~. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The Permittee shall record the ~~total~~ pressure drop across the Wheelabrator-88 baghouse used in conjunction with casting shakeout (BH3), at least once per day when the casting shakeout system is in operation ~~and when venting to the atmosphere~~. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee shall record the ~~total~~ pressure drop across the Wheelabrator-35 baghouse used in conjunction with the spin blast (BH2), at least once per day when the spin blast is in operation ~~and when venting to the atmosphere~~. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

A clarification on determining bag failure was added to Conditions D.1.10 and D.3.9. The Conditions now read:

D.1.10 Broken or Failed Bag Detection

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

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 emissions unit. 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 baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.3.9 Broken Bag or Failure Detection

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

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 emissions unit. 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 baghouses 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.

A clarification was required on required records relating to parametric monitoring. This affected the D Section requirements for Record Keeping.

Condition D.1.11 has been modified as follows:

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the Electric Induction Furnace stack exhaust once per day. **The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).**

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records once per day of the ~~total~~ pressure drop during normal operation ~~when venting to the atmosphere~~. **The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g., the process did not operate that day).**

(c) To document compliance with Condition D.1.2, the Permittee shall maintain records of the weight of metal melted each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.1.2.

~~(d) To document compliance with Condition D.1.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Condition D.3.1 has been modified as follows:

D.3.1 Hosakawa baghouse (BH5) Emissions [326 IAC 2-2] **[326 IAC 2-8]**

(a) The PM emissions from Hosakawa baghouse (BH5) shall be limited to 8.9 pounds per hour.

(b) The PM10 emissions from Hosakawa baghouse (BH5) shall be limited to 1.25 pounds per hour.

(c) The units exhausting to the Hosakawa baghouse (BH5) shall not operate more than a combined total of ~~6,447~~ 6,380 hours per 12 consecutive month period with compliance determined at the end of each month. Having two (2) or more units, that exhaust to the Hosakawa baghouse (BH5), operating in the same hour will only count as one (1) hour towards determining compliance with this limitation.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

Condition D.3.10 has been modified as follows:

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.7, the Permittee shall maintain records of visible emission notations taken each day of the baghouses BH2, BH3 and BH5 stack 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 (e.g., the process did not operate that day).**

(b) To document compliance with Condition D.3.8, the Permittee shall maintain records once per day of the total pressure drop during normal operation ~~when venting to the atmosphere~~. **The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g., the process did not operate that day).**

(c) To document compliance with Condition D.3.3, the Permittee shall maintain records of the weight of metal throughput to each process each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.3.3.

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

Condition D.5.2 has been modified as follows:

D.5.2 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

(a) The production of cores in the isocure machines (EU222, CBCM-1 and CBCM-2 combined) shall be less than 1,100 tons per 12 consecutive month period with compliance determined at the end of each month.

(b) The VOC emissions, including triethylamine (TEA), from each of the isocure machines (EU222, CBCM-1 and CBCM-2) shall be limited to 0.94 pounds per ton.

(c) The PM emissions from the sand silo shall be limited to 0.072 pounds per ton.

(d) The PM10 emissions from the sand silo shall be limited to 0.011 pounds per ton.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) **and 326 IAC 2-7 (Part 70 Program)** not applicable.

Condition D.5.8(c) has been modified as follows:

(c) The Permittee shall record the ~~total static~~ pressure drop across the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

Condition D.5.9 has been modified as follows:

D.5.9 Record Keeping Requirements

(a) To document compliance with Conditions D.5.7 and D.5.8, the Permittee shall maintain a log of sand silo loading times, visible emission notations for sand silo loading, quarterly inspections of the bin vent, pressure drop across the acid scrubber, scrubbing liquid flow rate, and scrubbing liquid pH, ~~and those additional inspections prescribed by the Preventive Maintenance Plan~~. **The Permittee shall include in its daily record when a visible emission notation, a pressure drop reading, a scrubber liquid flow rate reading, or a scrubbing liquid pH reading is not taken and the reason for the lack of a visible emission notation, a pressure drop reading, a scrubber liquid flow rate reading, or a scrubbing liquid pH reading (e.g., the process did not operate that day).**

(b) To document compliance with Condition D.5.3, the Permittee shall maintain records of the weight of cores produced each month. The records shall be complete and sufficient to establish compliance with the core production limitation in Condition D.5.2.

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

Indiana Department of Environmental Management
Office of Air Quality
And
Vigo County Air Pollution Control

Technical Support Document (TSD) for a FESOP Significant Revision.

Source Description and Location

Source Name:	**Gartland Foundry Company**
Source Location:	**330 Grant Street, Terre Haute, Indiana 47802**
County:	**Vigo County**
SIC Code:	**3321 (NAICS 331511)**
Operation Permit No.:	**F167-17828-00007**
Operation Permit Issuance Date:	**October 25, 2005**
Significant Permit Revision No.:	**167-24101-00007**
Permit Reviewer:	**Rob Harmon**

Permitted Emission Units and Pollution Control Equipment

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

(a) Two (2) Electric Induction Furnaces as follows:
1. EU130, consisting of induction furnace #3, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.
2. EU140, consisting of induction furnace #4, constructed in 1995, with a maximum capacity of 5.0 tons of metal per hour, using Steelcraft baghouse (BH1) for control, and exhausting to stack SC-2.

(b) One (1) electrostatic spray booth, identified as prime paint line EU710, constructed in 1983, with a maximum capacity of 500 grey iron castings per hour, with dry filters for control of particulate matter overspray, and exhausting to stack SC-6.

(c) Sand handling systems including:
1. Sand Muller, identified as EU591, constructed in 1997, with a maximum capacity of 100 tons per hour, and sand conveyor, constructed in 1970, identified as EU592, using Hosakawa baghouse (BH5) for control, and exhausting to stack SC-5.
2. Casting shakeout, identified as EU570, constructed in 2001, with a maximum capacity of 80 tons of sand per hour and 18 tons of metal per hour, using a Wheelabrator-88 baghouse (BH3) for control, and exhausting to stack SC-4.
3. Mold making process including six (6) squeezer mold machines (EU520, constructed in 1902), three (3) rotolift mold machines (EU521, constructed in 1902), auto mold machine (EU530, constructed in 2000), and another auto mold machine (EU531, constructed in 1993), utilizing no control, and exhausting to SU-INT6/7/8/13.

(d) One (1) Scrap/Charge Handling operation for the electric induction furnaces, identified as EU120, constructed in 1995, with a maximum capacity of 19 tons of metal per hour, and exhausting as fugitive emissions FG-1.

(e) Casting Finishing:
1. One (1) Spin Blast, identified as EU610, constructed in 1986, with a maximum capacity of 5 tons per hour of metal castings, using Wheelabrator-35 baghouse (BH2) for control and exhausting to stack SC-7.
2. One (1) Tumble Blast, identified as EU620, constructed in 1988, with a maximum

capacity of 5 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.

3. One (1) Tumbler, identified as EU630, constructed in 1989, with a maximum capacity of 1 ton per hour of metal castings using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
4. Four (4) Snag Grinders, identified as EU640(2 constructed in 1975, 1 in 1985, and 1 in 1991), each with a maximum capacity of 2 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control and exhausting to stack SC-5.
5. Six (6) self-contained finish grinders, identified as EU650, constructed in 1990, each with a maximum capacity of 2 tons per hour of metal castings, with downdraft tables using baffles for control and exhausting to general ventilation.

(f) Core making systems including:

1. Three (3) Shell Core Machines, identified as EU320, EU321, and EU322, constructed in 1979, each with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation;
2. One (1) Oil Core Making Process, identified as EU410, constructed in 1902, utilizing a mixer and associated core boxes with a maximum capacity of 0.25 tons per hour of sand, utilizing no controls and exhausting to general ventilation; and
3. Core Wash Process, identified as EU730, constructed in 1902, with a maximum capacity of 1 ton per hour of sand, utilizing no controls and exhausting to general ventilation.

(g) Magnesium Treatment (Inoculation), with a maximum capacity of 10 tons of metal per hour, identified as EU150, constructed in 1986, utilizing a closed ladle, and exhausting to general ventilation.

(h) Pouring, identified as EU540, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Pouring operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum pouring capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

(i) Cooling, identified as EU550, constructed in 1902, with a maximum capacity of 19.2 tons of metal per hour total. Cooling operations are conducted on the floor, sinto molding line, and beardsley molding line. The maximum cooling capacity of the floor, sinto molding line, and beardsley molding line is 11.2, 5.0, and 3.0 tons per hour of metal, respectively.

(j) Isocure Core making systems including:

1. Isocure Core Machine, identified as EU 222, constructed in 1994, fed by mixer 2, with a maximum capacity of 0.525 tons of sand/resin mixture per hour, a maximum of 21 pounds of resin per hour, and a maximum of 3.15 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
2. Cold Box (Isocure) Core Machine, identified as CBCM-1, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin mixture per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
3. Cold Box (Isocure) Core Machine, identified as CBCM-2, constructed in 2003, fed by mixer 2, with a maximum capacity of 1 ton of sand/resin per hour, a maximum of 40 pounds of resin per hour, and a maximum of 6 pounds of TEA per hour, controlled by an acid scrubber, and exhausting to stack SC-8.
4. Sand Mixer, identified as mixer 2, constructed in 2003, with a maximum capacity of 2.525 tons of sand/resin mixture per hour.
5. Sand heater, constructed in 1978
6. Sand Silo, with a maximum capacity of 165 tons of sand, loaded via pneumatic conveying system including an integral bin vent, utilizing no control.

Insignificant Activities

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) BTU per hour.

(b) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.

(d) Closed loop heating and cooling systems.

(e) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

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

(g) Heat exchanger cleaning and repair.

(h) Paved and unpaved roads and parking lots with public access.

(i) 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.

(j) Filter or coalescer media change out.

(k) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C.

(l) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(m) Other activities or categories not previously identified with emissions equal to or less than specific thresholds:
1. Unit 780 - Storage Piles
2. One (1) Turntable, identified as EU580, with a maximum capacity of 8.0 tons per hour of metal castings, using Hosakawa baghouse (BH5) for control, and exhausting to stack SC-5.

Existing Approvals

The source was issued FESOP Permit No. F167-17828-00007 on October 25, 2005. The source has not received any approvals since then:

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO_2	Maintenance attainment
NO_2	Attainment
8-hour Ozone	Maintenance Attainment
CO	Attainment
Lead	Attainment

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

(b) Vigo County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Vigo County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 re-designating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, re-designating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.

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

Source Status

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

Pollutant	Emissions (tons/year)
PM	99.92
PM10	58.40
SO_2	0.14
VOC	72.92
CO	41.40
NO_x	0.07

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) These emissions are based upon FESOP 167-17828-00007 issued on October 25, 2005.

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

HAPs	Potential To Emit (tons/year)
TEA (triethylamine)	0.066
Xylene	9.999
Glycol Ether	3.500
Methyl Isobutyl Ketone	1.480
Chromium Compounds	0.407
Cobalt Compounds	0.001
Nickel Compounds	0.678
Arsenic Compounds	0.006
Cadmium Compounds	0.003
Selenium Compounds	negligible
Manganese Compounds	0.261
Antimony Compounds	0.088
Phenol	0.495
Benzene	1.134
Analine	0.253
o-Cresol	0.128
Naphthalene	0.033
N,N Dimethylaniline	0.059
Toluene	0.446
m.p -Cresol	0.041
m.p -Xylene	0.030
Acetaldehyde	0.069
Ethylbenzene	0.048
Formaldehyde	0.008
Hexane	0.032
Other HAPs	0.048
TOTAL	19.314

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	21.33
PM10	13.32
SO_2	0.05

Pollutant	Actual Emissions (tons/year)
VOC	10.48
CO	0
NO_x	0.02

Description of Proposed Revision

The Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) have reviewed a revision application, submitted by Gartland Foundry Company on December 18, 2006, relating to increasing the short term PM and PM10 limits on the two Induction Furnaces (#3 and #4). In order to counter those increases the source has requested a reduction in the allowed hours of operation of the units controlled by the Hosakawa baghouse (BH5).

Enforcement Issues

IDEM and VCAPC are aware that there is a pending enforcement action for exceeding the PM and PM10 limitations in the existing FESOP on these Induction Furnaces (#3 and #4). IDEM is reviewing this matter and will take the appropriate action.

Emission Calculations

See Appendix A of this document for detailed emission calculations. (23 pages)

Permit Level Determination – FESOP

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

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1. This table reflects the PTE after controls and limitations because those reductions were either previously required in FESOP 167-17828-00007, or will be required as part of this Revision.

Criteria Pollutants

Emission Unit	Limit* (tpy)	PM	PM10	SOx	NOx	VOC	CO	Pb
Scrap and Charge Handling	13,800	4.14	2.48	-	-	-	-	Neg.
Electric Induction Melting	13,800	0.37	1.97	-	-	-	-	Neg.
Magnesium Treatment	1,970	1.77	1.77	-	-	-	-	Neg.
Pouring Operations	13,800	28.98	14.21	0.14	0.07	0.97	41.40	Neg.
Cooling Operations	13,800	9.66	9.66	-	-	-	included in pouring	-
Casting Shakeout	13,800	0.44	0.31	-	-	8.28	included in pouring	Neg.

Emission Unit	Limit* (tpy)	PM	PM10	SOx	NOx	VOC	CO	Pb
Mold Making	41,400	18.63	18.63	-	-	-	-	-
Coldbox Sand Handling	1,100	0.04	Neg.	-	-	-	-	-
Coldbox Core Machine	1,100	-	-	-	-	0.52	-	-
Coldbox Mixers	1,100	-	-	-	-	0.22	-	-
Shell Core Making	1,000	0.45	0.45	-	-	0.13	-	-
Oil Core Making	1,000	0.45	0.45	-	-	1.52	-	-
Release Agents	2,122 gallons	-	-	-	-	6.86	-	-
Core Wash	8760	-	-	-	-	12.53	-	-
Spinblast, - Spin Blast Wheelabrator	13,800	2.35	0.23	-	-	-	-	Neg.
Finish Grinding	13,800	Neg.	Neg.	-	-	-	-	-
Electrostatic Surface Coating Booth	VOC input limit	2.22	2.22	-	-	39.90	-	-
Combined Hosakawa (BH5) Operations**	6380 Hours	28.40	3.99	-	-	-	-	-
Other Insignificant	Est.	2	2	-	-	2	-	-
Source Wide Total		99.92	58.40	0.14	0.07	72.92	41.40	0.01

* These limitations were set pursuant to Significant Source Modification 167-16913-00007 issued on June 3, 2003. They were later incorporated into the Part 70 Permit through Significant Permit Modification 167-17187-00007 issued on July 10, 2003. Some changes have been made to those limits as a result of the FESOP 167-17828-00007 issued on October 25, 2005, as well as this Significant Permit Revision.
** The operations controlled by the Hosakawa Baghouse (BH5) are: Sand Handling (Muller and Conveyor), Tumble Blast / Tumbler, Snag Grinders, and insignificant shaker/sorter.

Organic Hazardous Air Pollutants (HAPs)

Hazardous Air Pollutant	Pouring, Cooling, and Casting Shakeout Combined	Cold Box Core Machine (ton/yr)	Surface Coating Booth (ton/yr)	Total (ton/yr)
TEA (triethylamine)	--	0.066	--	0.066
Xylene	0.264	--	9.735	9.999
Glycol Ether	--	--	3.500	3.500
Methyl Isobutyl Ketone	--	--	1.480	1.480
Phenol	0.495	--	--	0.495
Benzene	1.134	--	--	1.134
Analine	0.253	--	--	0.253
o-Cresol	0.128	--	--	0.128
Naphthalene	0.033	--	--	0.033
N,N Dimethylaniline	0.059	--	--	0.059
Toluene	0.446	--	--	0.446
m,p -Cresol	0.041	--	--	0.041
m,p -Xylene	0.030	--	--	0.030
Acetaldehyde	0.069	--	--	0.069
Ethylbenzene	0.048	--	--	0.048
Formaldehyde	0.008	--	--	0.008
Hexane	0.032	--	--	0.032
Other HAPs	0.048	--	--	0.048
		--	--	

Total Organic HAPs		--	--	17.870

Metallic Hazardous Air Pollutants (HAPs)

Hazardous Air Pollutant	Scrap and Charge Handling	Electric Induction Melting	Magnesium Treatment	Pouring Operations	Cooling Operations	Casting Shakeout	Sandblast	Tumble Grinding	Finish Grinding	Total
Chromium Compounds	0.037	0.001	0.016	0.261	0.087	0.004	0.001	--	--	0.407
Cobalt Compounds	Neg.	Neg.	Neg.	0.001	Neg.	Neg.	Neg.	--	--	0.001
Nickel Compounds	0.062	0.002	0.027	0.435	0.145	0.007	0.002	Neg.	Neg.	0.678
Arsenic Compounds	0.001	Neg.	Neg.	0.004	0.001	Neg.	Neg.	--	--	0.006
Cadmium Compounds	Neg.	Neg.	Neg.	0.002	0.001	Neg.	Neg.	--	--	0.003
Selenium Compounds	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	--	--	--
Manganese Compounds	0.0023	0.001	0.010	0.159	0.053	0.002	0.013	Neg.	Neg.	0.261
Antimony Compounds	0.008	Neg.	0.003	0.054	0.018	0.001	0.004	Neg.	Neg.	0.088
Total										1.444

Total Hazardous Air Pollutants (HAPs)

Organic HAPs	Metallic HAPs	Total HAPs
17.870	1.444	19.314

- Scrap and Charge Handling, Electric Induction Melting, Pouring, Cooling, Casting Shakeout, Sandblast, Tumble Grinding, and Finish Grinding emissions are limited by the throughput limit on melting in the furnaces.
- Magnesium Treatment emissions are limited by a throughput limitation.
- Coldbox Core Making emissions are limited by both a throughput limitation and the requirement to control the emissions with an acid scrubber.
- Surface Coating emissions are limited by a throughput limitation.

The modification will be incorporated into the FESOP Permit through a Significant Permit Revision issued pursuant to 326 IAC 2-8-11.1(g)(3), because the revision requires changing existing requirements for emission units.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability Determination

There are no state rules that are applicable to the source due to the modification.

Proposed Changes

The changes listed below have been made to FESOP Permit No. F167-17828-00007. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Additionally, there were other changes made to the FESOP Permit resulting from rule changes or other administrative reasons. Those other changes are as follows:

The following language was added to the cover page:

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.

Condition A.1 has been revised to reflect changes in the attainment status of Vigo County. Also, the specific listing of the authorized individual is no longer necessary. Condition A.1 has been revised as follows:

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

The Permittee owns and operates a stationary grey and ductile iron foundry for the manufacture of iron castings.

~~Authorized individual:~~	~~Mr. William Grimes, President~~
Source Address:	330 Grant Street, Terre Haute, Indiana 47802
Mailing Address:	PO Box 1564, Terre Haute, Indiana 47808
General Source Phone:	(812) 232-0226
SIC Code:	3321 (NAICS 331511)
Source Location Status:	Vigo County ~~Basic nonattainment for ozone under the 8-hour standard~~ Maintenance attainment for **8-hour ozone and** sulfur dioxide **standards** Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules ~~Minor Source, under Emission Offset Rules~~ Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Condition A.5 has been deleted. This requirement now appears in Condition B.13.

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

~~(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either~~

~~(1) incorporated as originally stated,~~

~~(2) revised, or~~

~~(3) deleted~~

~~by this permit.~~

~~(b) All previous registrations and permits are superseded by this permit.~~

Condition B.1 has been deleted. Conditions in Section B renumbered as needed to account for this change.

~~B.1 Permit No Defense [IC 13]~~

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

Condition B.3, now B.2, was changed as follows:

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

(a) This permit, **F167-17828-00007**, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ and VCAPC, 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.

Condition B.3 has been added:

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

Condition B.5 has been deleted. Conditions in Section B renumbered as needed to account for this change.

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

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

Condition B.9 has been moved and renumbered as B.10

~~B.9~~ **B.10** Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and VCAPC 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.

IDEM and VCAPC have determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency

has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM and VCAPC have deleted paragraph (b) of Section B – Preventive Maintenance, and has amended the Section B – Emergency Provisions condition as follows:

B.11~~B.12~~ Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]
[326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall **prepare and** maintain ~~and implement~~ Preventive Maintenance Plans (PMPs) **within ninety (90) days after issuance of this permit**, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

~~(c)~~ **(b)** A copy of the PMPs shall be submitted to IDEM, OAQ and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and VCAPC. IDEM, OAQ and VCAPC may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

~~(d)~~ **(c)** To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.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 describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: **317-233-0178** ~~317-233-5674~~(ask for Compliance Section)
Facsimile Number: **317-233-6865** ~~317-233-5967~~
Vigo County Air Pollution Control phone: (812) 462-3433; fax: (812) 462-3447

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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) IDEM, OAQ and VCAPC, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.~~

(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 and VCAPC 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 and VCAPC 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.

Conditions B.13 and B.14 have been added as follows:

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

(a) All terms and conditions of permits established prior to F167-17828-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(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)]

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.

Condition B.19, now B.20, was renamed:

~~B.19~~ **B.20** ~~Permit Revision Requirement~~ **Source Modification Requirement** [326 IAC 2-8-11.1]

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

Condition C.1 was revised as follows:

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) ~~Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.~~ **The potential to emit particulate matter (PM) from the entire source shall be limited to less**

than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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

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

Condition C.6 has been removed with the rest of the Conditions in section C being renumbered as appropriate.

~~C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]~~

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

Condition C.11, now C.10, has been modified as follows:

~~C.11~~ **C.10** Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 "authorized 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.

IDEM and VCAPC realize that these specifications can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM and VCAPC have also determined that the accuracy of the instruments

is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the condition. Condition C.13, now C.12, has been renamed and modified as follows:

~~C.13~~ **C.12** ~~Pressure Gauge and Other~~ Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) ~~Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.~~ **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 Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

~~(c)~~**(b)** The Permittee may request the IDEM, OAQ and VCAPC, approve the use of ~~a pressure gauge or other~~ **an** instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative ~~pressure gauge or other~~ instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

IDEM and VCAPC has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and the following changes have been made to the Section C condition: Condition C.15 was deleted.

~~C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]~~

~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and VCAPC upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response~~

steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM, OAQ and VCAPC of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall be considered a deviation from the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.14 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; and/or

(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.

Condition C.18, now C.17, has been revised as follows:

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as

defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

(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 and VCAPC 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.~~

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

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

Condition D.1.2 has been revised due to the request by Gartland Foundry Company for a higher limitation from these emission units. The increase in PM emissions is offset by the reduction in the hours of operation allowed for the Hosakawa Baghouse (BH5), which is detailed under Condition D.3.1 below. The following calculations show the relative changes in PM and PM10 potential emissions as a result of these limits changing:

PM increase = Limited tons melted per year * (new PM short term limit - old PM short term limit) / 2000 lb/ton
PM increase = 13,800 * (0.054-0.018) / 2000 = 0.248 ton PM

PM decrease = pounds per hour emission rate * (old BH5 max hours - new BH5 max hours) / 2000 lb/ton
PM decrease = 8.9 * (6447-6380) / 2000 = 0.298 ton PM

Delta PM = increase - decrease = 0.248 - 0.298 = -0.050 ton PM, therefore the limited PM emissions are lower after the modification

PM10 increase = Limited tons melted per year * (new PM10 short term limit - old PM10 short term limit) / 2000 lb/ton
PM10 increase = 13,800 * (0.286-0.017) / 2000 = 1.856 ton PM10

PM10 decrease = pounds per hour emission rate * (old BH5 max hours - new BH5 max hours) / 2000 lb/ton
PM10 decrease = 1.25 * (6447-6380) / 2000 = 0.042 ton PM10

Delta PM10 = increase - decrease = 1.856 - 0.042 = 1.814 ton PM10, therefore the limited PM10 emissions are higher after the modification. However, that increase only takes the limited PM10 source wide from 56.59 tons per year to 58.40 tons per year. This small increase does not impact the FESOP's effectiveness with regard to limiting the source below the Part 70 threshold of 100 tons PM10 per year.

D.1.2 Particulate Emissions [326 IAC 2-2] [326 IAC 2-8]

(a) Pursuant to Significant Source Modification 167-16913-00007, issued on June 3, 2003, the input of metal to the induction furnaces (EU130 and EU140 combined) shall be less than 13,800 tons per 12 consecutive month period with compliance determined at the end of each month.

(b) The PM emissions from the induction furnaces (#3 and #4) shall be limited to ~~0.018~~ **0.054** pounds per ton of metal melted.

(c) The PM10 emissions from the induction furnaces (#3 and #4) shall be limited to ~~0.017~~ **0.286** pounds per ton of metal melted.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter (PM and PM10) for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Condition D.1.3 was changed to reflect the correct rule citation as follows:

D.1.3 Particulate Emissions [326 IAC ~~6-1-2~~ **6.5-1-2**]

Pursuant to 326 IAC ~~6-1-2(e)~~ **6.5-1-2(e)**, the Permittee shall not allow or permit the discharge into the atmosphere any gases from the induction furnaces (#3 and #4) containing a particulate matter content grater than 0.07 grain per dry standard cubic foot.

Condition D.1.8 was changed as follows:

D.1.8 Visible Emissions Notations

(a) Visible emission notations of the Electric Induction Furnace stack (SC-2) exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest

emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit~~**. 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.**

Condition D.1.9 was changed as follows:

D.1.9 Parametric Monitoring

The Permittee shall record the total ~~static~~ pressure drop across the Steelcraft baghouse (BH1) used in conjunction with the Electric Induction Furnaces #3 and #4, at least once per day when either Electric Induction Furnace is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

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

Upon further review, IDEM has determined that it is the Permittee's responsibility to include routine control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed. Condition D.1.10 was deleted, with the remaining conditions in Section D.1 renumbered as required.

~~D.1.10 Baghouse Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling the Electric Induction Furnace operation when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

Paragraph (a) of the Broken or Failed Baghouse condition has been deleted. For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in

response to a broken bag. However, a requirement has been added to Condition D.1.10 requiring the Permittee to notify IDEM and VCAPC if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM and VCAPC to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition.

~~D.1.11~~ **D.1.10** Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) ~~For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC 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.~~ **For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated processes will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~ **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 emissions unit. 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).**

Upon further review, IDEM and VCAPC have determined that once per day monitoring of the control device (or of visible emission notations) is generally sufficient to ensure proper operation of the control device. IDEM and VCAPC have also determined that monitoring these parameters once per day is sufficient to satisfy the requirements. This change also makes the record keeping provisions consistent with the permit conditions. Condition D.1.12, now D.1.11, was changed as follows:

~~D.1.12~~ **D.1.11** Record Keeping Requirements

(a) To document compliance with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the Electric Induction Furnace stack exhaust once per ~~shift~~ **day**.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records once per ~~shift~~ **day** of the total ~~static~~ pressure drop during normal operation when venting to the atmosphere.

~~(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of the results of the inspections required under Condition D.1.10 and the dates the vents are redirected.~~

~~(d)~~ **(c)** To document compliance with Condition D.1.2, the Permittee shall maintain records of the weight of metal melted each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.1.2.

~~(e)~~ **(d)** To document compliance with Condition D.1.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

Condition D.2.3 was changed to reflect the correct rule citation as follows:

D.2.3 Particulate Matter (PM) [326 IAC ~~6-1-2~~ **6.5-1-2**]

Pursuant to 326 IAC ~~6-1-2(a)~~ **6.5-1-2(a)** (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the electrostatic spray booth (EU710) shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

Condition D.2.5 was modified due to a change in the emission factor for xylene emissions from pouring, cooling, and casting shakeout. That increase required a reduction in the allowable emissions from the electrostatic spray booth to continue to limit xylene emissions below the Part 70 threshold. The change was also carried through the appropriate quarterly report. The changes are as follows:

D.2.5 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-8]

The Xylene input to the electrostatic spray booth (EU710) shall not exceed **9.735** ~~9.883~~ tons per 12 consecutive month period with compliance determined at the end of each month. Compliance with this limit makes 326 IAC 2-7 (Part 70 Program) not applicable.

Condition D.2.9 was changed as follows:

D.2.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the spray booth stack (SC-6) while the spray booth is in operation. ~~The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.~~ **The Permittee shall take reasonable**

response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.~~ **The Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

~~(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Condition D.2.10(c) was changed as follows:

D.2.10 Record Keeping Requirements

(c) To document compliance with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, **and** daily and monthly inspections~~, and those additional inspections prescribed by the Preventive Maintenance Plan~~.

Condition D.3.1 has been revised due to the request by Gartland Foundry Company to reduce the maximum emissions from this unit. The calculations showing the potential PM and PM10 impacts of these changes have been detailed under the changes to Condition D.1.2 above. Additionally, language has been added to clarify the hours of operation limit.

D.3.1 Hosakawa baghouse (BH5) Emissions [326 IAC 2-2]

(a) The PM emissions from Hosakawa baghouse (BH5) shall be limited to 8.9 pounds per hour.

(b) The PM10 emissions from Hosakawa baghouse (BH5) shall be limited to 1.25 pounds per hour.

(c) The **units exhausting to the** Hosakawa baghouse (BH5) shall not operate more than **a combined total of** ~~6,447~~ **6,380** hours per 12 consecutive month period with compliance determined at the end of each month. **Having two (2) or more units, that exhaust to the Hosakawa baghouse (BH5), operating in the same hour will only count as one (1) hour towards determining compliance with this limitation.**

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

The report form to demonstrate compliance with this Hosakawa baghouse (BH5) usage limitation

was also revised to reflect the new limitation in Condition D.3.1.

Condition D.3.2 was changed to reflect the correct rule citation as follows:

D.3.2 Particulate Matter Limitation (PM) [326 IAC ~~6-1-2~~ **6.5-1-2**]

The Sand Muller (EU591); Casting shakeout (EU570); Mold making process (mold making muller (EU510), six (6) squeezer mold machines (EU520), four (4) rotolift mold machines (EU521), and two auto mold machines (EU530 and EU531)); Scrap/Charge Handling operation for the electric induction furnaces (EU120); Casting Finishing (Spin Blast (EU610), Tumble Blast (EU620), Tumbler (EU630), Snag Grinding (EU640), and Finish Grinding (EU650)); Core making systems (Shell Core Machines (EU320, EU321, and EU322), Oil Core Making Process (EU410), and Core Wash Process (EU730)) shall each not emit particulate matter (PM) in excess of 0.03 grains per dry standard cubic foot.

Condition D.3.7 was changed as follows:

D.3.7 Visible Emissions Notations

(a) Visible emission notations of each of the three baghouse (BH2, BH3, and BH5) exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit~~**. 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.**

Condition D.3.8 was changed as follows:

D.3.8 Parametric Monitoring

(a) The Permittee shall record the total ~~static~~ pressure drop across the Hosakawa baghouse used in conjunction with the sand muller and sand conveyor (BH5), at least once per day when the sand muller and sand conveyor are in operation and when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this~~

~~permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

(b) The Permittee shall record the total ~~static~~ pressure drop across the Wheelabrator-88 baghouse used in conjunction with casting shakeout (BH3), at least once per day when the casting shakeout system is in operation and when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

(c) The Permittee shall record the total ~~static~~ pressure drop across the Wheelabrator-35 baghouse used in conjunction with the spin blast (BH2), at least once per day when the spin blast is in operation and when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

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

Condition D.3.9 was deleted; renumbered the rest of Section D.3 as required.

~~D.3.9 Baghouse Inspections~~

~~(a) An inspection shall be performed each calendar quarter of all bags controlling the sand muller and sand conveyor (Hosakawa baghouse BH5) when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~(b) An inspection shall be performed each calendar quarter of all bags controlling the casting shakeout (Wheelabrator-88 baghouse BH3) when venting to the~~

~~atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~(c) An inspection shall be performed each calendar quarter of all bags controlling the spin blast (Wheelabrator-35 baghouse BH2) when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

Condition D.3.10, now D.3.9, as changed as follows:

~~D.3.10~~ **D.3.9** Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) ~~For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC 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.~~ **For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated processes 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 single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated processes will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~ **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 emissions unit. 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).**

Upon further review, IDEM and VCAPC have determined that once per day monitoring of the control device (or of visible emission notations) is generally sufficient to ensure proper operation of the control device. IDEM and VCAPC have also determined that monitoring these parameters once per day is sufficient to satisfy the requirements. This change also makes the record keeping

provisions consistent with the permit conditions. Condition D.3.11, now D.3.10, was changed as follows:

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.7, the Permittee shall maintain records of visible emission notations taken each ~~shift~~ **day** of the baghouses BH2, BH3 and BH5 stack exhausts.

(b) To document compliance with Condition D.3.8, the Permittee shall maintain records once per ~~shift~~ **day** of the total ~~static~~ pressure drop during normal operation when venting to the atmosphere.

~~(c) To document compliance with Condition D.3.9, the Permittee shall maintain records of the results of the inspections required under Condition D.3.9 and the dates the vents are redirected.~~

~~(d)~~ **(c)** To document compliance with Condition D.3.3, the Permittee shall maintain records of the weight of metal throughput to each process each month. The records shall be complete and sufficient to establish compliance with the melting use limitation in Condition D.3.3.

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

Condition D.4.1 was changed to reflect the correct rule citation as follows:

D.4.1 Particulate Matter Limitation (PM) [[326 IAC ~~6-1-2~~ **6.5-1-2**]

Pursuant to 326 IAC ~~6-1-2~~ **6.5-1-2**, each of the facilities listed above (Magnesium Treatment, Pouring, and Cooling) shall not emit particulate matter (PM) in excess of 0.03 grains per dry standard cubic foot.

Condition D.4.2 was changed to include the CO limit for pouring, cooling, and casting shakeout. The change is as follows:

D.4.2 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

(a) Magnesium Treatment (Inoculation)
1. The input of metal to the Magnesium Treatment (EU150) shall be less than 1,970 tons per 12 consecutive month period with compliance determined at the end of each month.
2. The PM emissions from Magnesium Treatment shall be limited to 1.8 pounds per ton of metal.
3. The PM10 emissions from Magnesium Treatment shall be limited to 1.8 pounds per ton of metal.

(b) Pouring
1. The PM emissions from Pouring shall be limited to 4.20 pounds per ton of metal.
2. The PM10 emissions from Pouring shall be limited to 2.06 pounds per ton of metal.
3. The VOC emissions from Pouring and Cooling shall be limited to 0.14 pounds per ton of metal.

(c) Cooling
1. The PM emissions from Cooling shall be limited to 1.40 pounds per ton of metal.
2. The PM10 emissions from Cooling shall be limited to 1.40 pounds per ton

of metal.

(d) Pouring, Cooling, and Casting Shakeout
The CO emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 6.0 pounds per ton of metal melted.

These limits (combined with others throughout this approval) are required to limit the potential to emit of particulate matter and VOC for Gartland Foundry to less than 100 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70 Program) not applicable.

Condition D.4.3 was changed to add organic HAP limitations for pouring, cooling, and casting shakeout combined. In some cases these new limitations replaced previous limitations. The changes are as follows:

D.4.3 Hazardous Air Pollutant (HAP) Emissions [326 IAC 2-8]

(a) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from Magnesium Treatment (Inoculation) shall be limited to 0.05684 pounds per ton of metal.

~~(b) The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from Pouring shall be limited to 0.13264 pounds per ton of metal.~~

~~(c) The combined Non-Metallic HAP emissions (acrolein, benzene, formaldehyde, naphthalene, phenol, toluene, and xylene) from Pouring shall be limited to 0.09563 pounds per ton of metal.~~

~~(d) The xylene emissions from Pouring shall be limited to 0.0168 pounds per ton of metal.~~

(e) ~~The combined Metallic HAP emissions (chromium compounds, cobalt compounds, nickel compounds, arsenic compounds, cadmium compounds, selenium compounds, manganese compounds, and antimony compounds) from Cooling shall be limited to 0.0442 pounds per ton of metal.~~

(b) Pouring, Cooling, and Casting Shakeout

1. The Phenol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0718 pounds per ton of metal.

2. The Benzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.1643 pounds per ton of metal.

3. The Analine emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0366 pounds per ton of metal.

4. The o-Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0185 pounds per ton of metal.

5. The Naphthalene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0048 pounds per ton of metal.

6. The N,N - Dimethylaniline emissions from Pouring, Cooling, and

Casting Shakeout combined shall be limited to 0.0085 pounds per ton of metal.

7. **The Toluene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0647 pounds per ton of metal.**
8. **The m,p -Cresol emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0059 pounds per ton of metal.**
9. **The m,p -Xylene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0044 pounds per ton of metal.**
10. **The Xylene (Total) emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0383 pounds per ton of metal.**
11. **The Acetaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0100 pounds per ton of metal.**
12. **The Ethylbenzene emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.**
13. **The Formaldehyde emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0011 pounds per ton of metal.**
14. **The Hexane emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0046 pounds per ton of metal.**
15. **The Other HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.0070 pounds per ton of metal.**
16. **The Total Organic HAP emissions from Pouring, Cooling, and Casting Shakeout combined shall be limited to 0.4475 pounds per ton of metal.**

These limits (combined with others throughout this approval) are required to limit the potential to emit of HAPs for Gartland Foundry to less than 10 tons per 12 consecutive month period individually and to less than 25 tons per 12 consecutive month period combined. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Condition D.5.1 was changed to reflect the correct rule citation as follows:

D.5.1 Particulate Matter (PM) [326 IAC ~~6-1-2~~ **6.5-1-2**]

Pursuant to 326 IAC ~~6-1-2(a)~~ **6.5-1-2(a)** particulate matter emissions from each emission unit shall not exceed 0.03 grain per dry standard cubic foot.

Condition D.5.7 was changed as follows:

D.5.7 Bin Vent Monitoring

(a) Visible emissions notations of the bin vent exhaust shall be performed during each time the sand silo is loaded. A trained employee will record whether emissions are normal or abnormal.
  (1) 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.
  (2) 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.

(3) 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.

(4) ~~The Compliance Response Plan shall contain troubleshooting contingency and response steps for when abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.~~ **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.**

(b) The Permittee shall quarterly inspect the bin vent for proper operation and to ensure the filters are in good condition. ~~The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.~~ **The Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

~~(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Condition D.5.8 was changed as follows:

D.5.8 Acid Scrubber Monitoring

(a) The Permittee shall record the scrubbing liquor flow rate through the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the flow rate through the scrubber is below the minimum 10 gallons per minute or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A flow reading that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

(b) The Permittee shall record the scrubbing liquid pH in the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the scrubbing liquid pH is above the maximum 4.5 or a maximum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A pH reading that is above the above mentioned maximum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records,~~

~~and Reports, shall be considered a deviation of this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

(c) The Permittee shall record the total static pressure drop across the acid scrubber controlling the core making machines, at least once per day when the scrubber is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with ~~Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~ **Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.**

(d) The instruments used for determining the scrubbing liquid flow rate, pH, and pressure drop shall comply with Section C – ~~Pressure Gauge and Other~~ Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and VCAPC, and shall be calibrated at least once every six (6) months.

~~(e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 167-24101-00007. The staff recommend to the Commissioner that this FESOP Significant Permit Revision be approved.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Scrap and Charge Handling

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
PM	0.60	26.28	4.14
PM10	0.36	15.77	2.48
Lead	0.00001	0.00	0.00

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
PM and PM10 Emission Factors from AP-42.
Pb Emission Factor generated by Lab Data from Gartland.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
	chromium	0.0054	0.24	0.04
	cobalt	0.00002	0.00	0.00
	nickel	0.009	0.39	0.06
	arsenic	0.00008	0.00	0.00
	cadmium	0.00004	0.00	0.00
	selenium	0.00001	0.00	0.00
	manganese	0.0033	0.14	0.02
	antimony	0.00111	0.05	0.01
	Total Metalic HAP		0.83	0.13

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Electric Induction Melting

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Steelcraft baghouse (BH1)]*

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.90	39.42	0.37	0.054
PM10	0.86	37.67	1.97	0.286
Lead	0.0455	1.99	0.01	0.001

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = After Control Short Term Limit (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)

*Due to results of stack testing this efficiency is no longer being used to calculate after control emissions. The limitation on after control emission rate has been set, and then used with the maximum throughput to determine the maximum limited emissions.

PM, PM10, and Lead Emission Factors from AP-42.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
	chromium	0.0081	0.35	0.00
	cobalt	0.00003	0.00	0.00
	nickel	0.0135	0.59	0.00
	arsenic	0.00012	0.01	0.00
	cadmium	0.00005	0.00	0.00
	selenium	0.00001	0.00	0.00
	manganese	0.00495	0.22	0.00
	antimony	0.00167	0.07	0.00
	Total Metalic HAP		1.25	0.00

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1 - (control efficiency / 100)) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Magnesium Treatment

87600 Maximum throughput (tons per year)
1970 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
PM	1.80	78.84	1.77
PM10	1.80	78.84	1.77
Lead	0.00003	0.00	0.00

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
PM and PM10 Emission Factors from AP-42.
Pb Emission Factor generated by Lab Data from Gartland.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emission (tons per year)	Max Limited Emission (tons per year)
	chromium	0.0162	0.71	0.02
	cobalt	0.00005	0.00	0.00
	nickel	0.027	1.18	0.03
	arsenic	0.00023	0.01	0.00
	cadmium	0.00011	0.00	0.00
	selenium	0.00002	0.00	0.00
	manganese	0.0099	0.43	0.01
	antimony	0.00333	0.15	0.00
	Total Metalic HAP		2.49	0.06

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Pouring Operations

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
PM	4.20	183.96	28.98
PM10	2.06	90.23	14.21
SO2	0.02	0.88	0.14
NOx	0.01	0.44	0.07
VOC	0.14	6.13	0.97
CO*	6.00	262.80	41.40
Lead	0.00007	0.00	0.00

* CO factor is for Pouring, Cooling and Casting Shakeout combined.

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
PM and PM10 Emission Factors from AP-42.
Pb Emission Factor generated by Lab Data from Gartland.
SO2, NOx, and VOC Emission Factors from AP-42. SCC 3-04-003-20

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
	chromium	0.0378	1.66	0.26
	cobalt	0.00013	0.01	0.00
	nickel	0.063	2.76	0.43
	arsenic	0.00055	0.02	0.00
	cadmium	0.00025	0.01	0.00
	selenium	0.00004	0.00	0.00
	manganese	0.0231	1.01	0.16
	antimony	0.00777	0.34	0.05
	Total Metalic HAP		5.81	0.92

Note: Organic HAP emissions from Pouring, Cooling, and Casting Shakeout are presented on Page 7.

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)
Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Cooling Operations

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
PM	1.40	61.32	9.66
PM10	1.40	61.32	9.66

CO emissions from Pouring, Cooling, and Casting Shakeout (Combined) is included in the Pouring Calculations on Page 4.

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)

PM and PM10 Emission Factors from AP-42. SCC 3-04-003-25

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
	chromium	0.0126	0.55	0.09
	cobalt	0.00004	0.00	0.00
	nickel	0.021	0.92	0.14
	arsenic	0.00018	0.01	0.00
	cadmium	0.00008	0.00	0.00
	selenium	0.00001	0.00	0.00
	manganese	0.0077	0.34	0.05
	antimony	0.00259	0.11	0.02
	Total Metalic HAP		1.94	0.30

Note: Organic HAP emissions from Pouring, Cooling, and Casting Shakeout are presented on Page 7.

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Casting Shakeout

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Wheelabrator 88 Baghouse (BH3)]

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	3.20	140.16	0.44	0.064
PM10	2.24	98.11	0.31	0.045
VOC	1.20	52.56	8.28	*
Lead	0.00005	0.00	0.00	0.000

CO emissions from Pouring, Cooling, and Casting Shakeout (Combined) is included in the Pouring Calculations on Page 4.

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

PM and PM10 Emission Factors from AP-42.

Pb Emission Factor generated by Lab Data from Gartland.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
	chromium	0.0288	1.26	0.00	0.0006
	cobalt	0.0001	0.00	0.00	0.0000
	nickel	0.048	2.10	0.01	0.0010
	arsenic	0.00042	0.02	0.00	0.0000
	cadmium	0.00019	0.01	0.00	0.0000
	selenium	0.00003	0.00	0.00	0.0000
	manganese	0.0176	0.77	0.00	0.0004
	antimony	0.00592	0.26	0.00	0.0001
	Total Metalic HAP				0.0020

Note: Organic HAP emissions from Pouring, Cooling, and Casting Shakeout are presented on Page 7.

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1 - (control efficiency / 100)) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Pouring, Cooling, and Casting Shakeout Combined Organic HAP emissions

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
	Phenol	0.0718	3.145	0.495
	Benzene	0.1643	7.196	1.134
	Analine	0.0366	1.603	0.253
	o-Cresol	0.0185	0.810	0.128
	Naphthalene	0.0048	0.210	0.033
	N,N - Dimethylaniline	0.0085	0.372	0.059
	Toluene	0.0647	2.834	0.446
	m,p -Cresol	0.0059	0.258	0.041
	m, p -Xylene	0.0044	0.193	0.030
	Xylene (Total)	0.0383	1.678	0.264
	Acetaldehyde	0.0100	0.438	0.069
	Ethylbenzene	0.0070	0.307	0.048
	Formaldehyde	0.0011	0.048	0.008
	Hexane	0.0046	0.201	0.032
	Other HAPs	0.0070	0.307	0.048
	Total Organic HAP	0.4475	16.429	2.588

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) / 2000 (lb/ton)

Emission Factors are from Reference Tests Recommended in "Organic Hazardous Air Pollutant Emission Factors for Iron Foundries", prepared by the Air Quality Committee (10-E) of the American Foundry Society August 16, 2005 for Calculating Emission Factors for Pouring, Cooling, and Shakeout.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Sand Handling System

Includes sand muller and sand conveyor

876000 Maximum throughput (tons per year, based on 100 tons per hour @ 8760)
200000 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Hosakawa Baghouse (BH5)]

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions* (tons per year)	After Control Short Term Limit (pounds per ton)
PM	3.60	1576.80	7.20	0.072
PM10	0.54	236.52	1.08	0.011

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

PM and PM10 Emission Factors from AP-42. SCC 3-04-003-50

*Due to the variety of emission units controlled by BH5, there will be a combined limit approach on them.

Mold Making

Includes squeezer mold machines, rotolift mold machines, and two (2) automold lines (Sinto and B&P)

508080 Maximum throughput (tons per year, based on 58 tons per hour @ 8760)
41400 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.90	228.64	18.63	*
PM10	0.90	228.64	18.63	*

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

PM and PM10 Emission Factors from AP-42.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Coldbox Sand Handling

22119 Maximum throughput (tons per year)
1100 Maximum limited throughput (tons per year)
98% Overall Control Efficiency (integral bin vent)

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	3.60	39.81	0.04	0.072
PM10	0.54	5.97	0.01	0.011

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

PM and PM10 Emission Factors from AP-42.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Coldbox Core Machine

22119 Maximum throughput (tons per year)
1100 Maximum limited throughput (tons per year)
98% Overall Control Efficiency (TEA only, no control on the non TEA VOC, Acid Scrubber)

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
VOC (non TEA)	0.82	9.07	0.45	0.820
TEA	6.00	66.36	0.07	0.120
Total VOC		75.43	0.52	0.940

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

VOC and TEA Emission Factors from Mass Balance calculations.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Coldbox Mixers

22119 Maximum throughput (tons per year)
1100 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
VOC	0.40	4.42	0.22

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

VOC Emission Factor from Mass Balance calculations.

Gartland Foundry Company
FESOP Significant Revision 167-24101-00007
Application Received: December 18, 2006
Permit Reviewer: Rob Harmon

Shell Core Making

26280 Maximum throughput (tons per year)
1000 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.90	11.83	0.45	*
PM10	0.90	11.83	0.45	*
VOC	0.254	3.34	0.13	*

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
100)) / 2000 (lb/ton)
After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))
A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.
PM and PM10 Emission Factors from AP-42. VOC Emission Factor from Mass Balance.

Oil Core Making

2190 Maximum throughput (tons per year)
1000 Maximum limited throughput (tons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.90	0.99	0.45	*
PM10	0.90	0.99	0.45	*
VOC	3.05	3.34	1.52	*

Methodology:
Potential emissions are determined prior to control equipment or throughput limitation.
Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)
Max Limited Emission includes enforceable limits on control and throughput.
100)) / 2000 (lb/ton)
After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))
A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.
PM and PM10 Emission Factors from AP-42. VOC Emission Factor from Mass Balance.

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Release Agents

2122 Maximum throughput (gallons per year)
2122 Maximum limited throughput (gallons per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (pounds per gal)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
VOC	6.47	6.86	6.86

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

VOC Emission Factor from MSDS sheets.

Core Wash

8760 Maximum throughput (tons isocure sand per year (from page 8))
8760 Maximum limited throughput (tons isocure sand per year)
0% Overall Control Efficiency

Pollutant	Emission Factor (lb per ton sand)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)
VOC	5.2000	12.53	12.53

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

Core Wash is 55% volatile

VOC Emission Factor from Company

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Sandblast - Spin Blast

43800 Maximum throughput (tons per year, 5 tons per hour @ 8760)
13800 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Wheelabrator 35 baghouse (BH2)]

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions* (tons per year)	After Control Short Term Limit (pounds per ton)
PM	17.00	372.30	2.35	0.340
PM10	1.70	37.23	0.23	0.034
Lead	0.00027	0.01	0.00	0.000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

PM and PM10 Emission Factors from AP-42.

Pb Emission Factor generated by Lab Data from Gartland.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
	chromium	0.00646	0.14	0.00	0.0001
	cobalt	0.00051	0.01	0.00	0.0000
	nickel	0.01139	0.25	0.00	0.0002
	arsenic	0.00221	0.05	0.00	0.0000
	cadmium	0.00102	0.02	0.00	0.0000
	selenium	0.00017	0.00	0.00	0.0000
	manganese	0.0935	2.05	0.01	0.0019
	antimony	0.03145	0.69	0.00	0.0006
	Total Metalic HAP				0.0029

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

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Sandblast - Tumble Blast / Tumbler

43800 Maximum throughput (tons per year, 5 tons per hour @ 8760)
13800 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Hosakawa Baghouse (BH5)]

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions* (tons per year)	After Control Short Term Limit (pounds per ton)
PM	17.00	372.30	2.35	0.340
PM10	1.70	37.23	0.23	0.034
Lead	0.00027	0.01	0.00	0.000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

PM and PM10 Emission Factors from AP-42.

Pb Emission Factor generated by Lab Data from Gartland.

*Due to the variety of emission units controlled by BH5, there will be a combined limit approach on them.

HAP Emissions

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
chromium	0.00646	0.14	0.00	0.0001
cobalt	0.00051	0.01	0.00	0.0000
nickel	0.01139	0.25	0.00	0.0002
arsenic	0.00221	0.05	0.00	0.0000
cadmium	0.00102	0.02	0.00	0.0000
selenium	0.00017	0.00	0.00	0.0000
manganese	0.0935	2.05	0.01	0.0019
antimony	0.03145	0.69	0.00	0.0006
Total Metalic HAP				0.0029

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1 - (control efficiency / 100)) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

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Tumble Grinding

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
98% Overall Control Efficiency [Hosakawa Baghouse BH5)]

Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions* (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.010	0.44	0.00	0.00020
PM10	0.0045	0.20	0.00	0.00009
Lead	0.0000002	0.00	0.00	0.00000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

PM and PM10 Emission Factors from AP-42.

Pb Emission Factor generated by Lab Data from Gartland.

*Due to the variety of emission units controlled by BH5, there will be a combined limit approach on them.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
	nickel	0.00001	0.00	0.00	0.00000
	manganese	0.00006	0.00	0.00	0.00000
	antimony	2.00E-07	0.00	0.00	0.00000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

100)) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

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Finish Grinding

87600 Maximum throughput (tons per year)
13800 Maximum limited throughput (tons per year)
80% Overall Control Efficiency (downdraft tables with baffles for control)

Pollutant	Emission Factor (pounds per ton)	Potential Emission (tons per year)	Max Limited Emission (tons per year)	After Control Short Term Limit (pounds per ton)
PM	0.010	0.44	0.01	0.0020
PM10	0.0045	0.20	0.01	0.0009
Lead	2.00E-07	0.00	0.00	0.0000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1-(control efficiency / 100)) / 2000 (lb/ton)

After Control Short Term Limit = Emission Factor * (1 - (control efficiency / 100))

A * indicates there was no control for that pollutant, therefore the short term limit is equal to the E.F.

PM and PM10 Emission Factors from AP-42.

Pb Emission Factor generated by Lab Data from Gartland.

HAP Emissions	Pollutant	Emission Factor (pounds per ton)	Potential Emissions (tons per year)	Max Limited Emissions (tons per year)	After Control Short Term Limit (pounds per ton)
	nickel	0.00001	0.00	0.00	0.00000
	manganese	0.00006	0.00	0.00	0.00001
	antimony	0.00002	0.00	0.00	0.00000

Methodology:

Potential emissions are determined prior to control equipment or throughput limitation.

Potential Emissions = Emission Factor (lb pollutant/ton processed) * Maximum throughput (ton/year) / 2000 (lb/ton)

Max Limited Emission includes enforceable limits on control and throughput.

Max Limited Emissions = Emission Factor (lb pollutant/ton processed) * Maximum limited throughput (ton/year) * (1 - (control efficiency / 100)) / 2000 (lb/ton)

Emission Factors are from AP-42, Ch12.10 and Speciate Database.

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BH5 Limitation

Before the limit for BH5 can be determined, an accounting of all the other PM and PM10 processes is needed. This accounting allows for the calculation of the amount of PM and PM10 remaining before 326 IAC 2-2 or 326 IAC 2-7 become applicable.

Emission Unit	Potential PM ton/yr after limit	Potential PM10 ton/yr after limit
Scrap and Charge Handling	4.140	2.484
Electric Induction Melting	0.373	1.973
Magnesium Treatment	1.773	1.773
Pouring Operations	28.980	14.214
Cooling Operations	9.660	9.660
Casting Shakeout	0.442	0.309
Mold Making	18.630	18.630
Coldbox Sand Handling	0.040	0.006
Shell Core Making	0.450	0.450
Oil Core Making	0.450	0.450
Spin Blast System	2.346	0.235
Surface Coating Booth	2.223	2.223
Insignificant (Estimated)	2.000	2.000
Total	71.506	54.407
Threshold	100	100
Space Remaining	28.494	45.593

Potential PM / PM10 Emissions from the units BH5 controls

Emission Unit	Potential PM ton/yr	Potential PM10 ton/yr
Sand Handling (muller / conveyor)	1576.80	236.52
Tumble Blast / Tumbler	372.30	37.23
Snag Grinders	0.44	0.20
Total	1949.54	273.95
After 98% control	38.99	5.48
pounds per hour	8.902	1.2509
Above Space Remaining?	Y	N

Space Available (tons per year)	28.40	28.397	Max Limited PM Emissions
Emission Rate (pounds per hour)	8.902	3.990	Max Limited PM10 Emissions
Hours to fill the available space	6380		

Methodology:

The potential emissions after control (and/or limitation) were tabulated for all emission units not controlled by baghouse BH5. These emissions were added together to establish a total.

The potential emission total was subtracted from the PSD and Part 70 threshold of 100 tons per year to determine how much "space" was still available for allocation to the units baghouse BH5 controls.

The potential emissions before control were tabulated for all emission units controlled by BH5, then added to establish a total

After 98% control = Total Potential Emissions * (1-(98/100))

PM is the limiting factor, because there is enough available space left for the PM10 potential from the BH5 controlled units.

PM pounds per hour = After 98% Control * 2000 pound per ton / 8760 hours per year

Hours to fill the available space = Space Available * 2000 pounds per ton / PM pounds per hour

Maximum limited PM emissions = Hours to fill available space * PM pounds per hour

Maximum limited PM10 emissions = Hours to fill available space * PM10 pounds per hour

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Surface Coating Emissions - Before Control or Limitations

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Coatings																
KA 1663 HSPOXSL	11.7	27.10%	0.0%	27.1%	0.0%	46.90%	0.01000	500	3.17	3.17	15.85	380.48	69.44	46.70	6.76	75%
KWA-1887	9.4	45.80%	44.9%	0.9%	50.7%	43.20%	0.01000	500	0.17	0.08	0.42	10.15	1.85	27.89	0.20	75%
Solvents																
Methyl propyl ketone	6.76	100.00%	0.0%	100.0%	0.0%	0.00%	0.00100	500	6.76	6.76	3.38	81.12	14.80	0.00	NA	0%
State Potential Emissions			**Add worst case coating to all solvents**								**19.66**	**471.76**	**86.10**	**74.59**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Particulate Emissions After Control

Capture Effeciency	99%	
Removal Effeciency	98%	fabric filters
Overall Control Efficiency	97.02%	

PM/PM10 Potential after control 2.22 tons per year

HAP Potential Emissions

Material	Density (Lb/Gal)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Glycol Ethers	Weight % Methyl Isobutyl Ketone	Potential Xylene (ton/yr)	Potential Glycol Ethers (ton/yr)	Potential Methyl Isobutyl Ketone (ton/yr)	Potential HAP Total (ton/yr)
Coatings										
KA 1663 HSPOXSL	11.7	0.010	500	23.5%	0.0%	0.0%	60.21	0.00	0.00	60.21
KWA-1887	9.4	0.010	500	0.0%	1.7%	0.0%	0.00	3.50	0.00	3.50
Solvents										
Methyl propyl ketone	6.76	0.001	500	0.0%	0.0%	10.0%	0.00	0.00	1.48	1.48
Total							60.21	3.50	1.48	65.19

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP *8760 (hrs/yr) * 1 ton/2000 lbs

Limited Emissions

VOC limit	39.9	Tons VOC per 12 consecutive month period (makes 2-2 not applicable, source asked for that more restrictive limit)
Xylene Limit	9.735	Tons Xylene per 12 consecutive month period (makes 2-7 not applicable)

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Summary Table 1 (Potential Emission in Tons per Year (tpy))

Emission Unit	PM	PM10	Lead	SO2	NOx	VOC	CO
Scrap and Charge Handling	26.28	15.77	0.00				
Electric Induction Melting	39.42	37.67	1.99				
Magnesium Treatment	78.84	78.84	0.00				
Pouring Operations	183.96	90.23	0.00	0.88	0.44	6.13	262.80
Cooling Operations	61.32	61.32					
Casting Shakeout	140.16	98.11	0.00			52.56	
Sand Handling System	1576.80	236.52					
Mold Making Systems	228.64	228.64					
Coldbox Sand Handling	39.81	5.97					
Coldbox Core Making						75.43	
Coldbox Mixers						4.42	
Shell Core Making	11.83	11.83				3.34	
Oil Core Making	0.99	0.99				3.34	
Release Agents						6.86	
Core Wash						12.53	
Sandblast - Spin Blast	372.30	37.23	0.01				
Sandblast - Tumble Blast / Tumbler	372.30	37.23	0.01				
Tumble Grinding	0.44	0.20	0.00				
Finish Grinding	0.44	0.20	0.00				
Surface Coating Booth	74.59	74.59				86.10	
Total	3208.11	1015.32	2.01	0.88	0.44	250.70	262.80

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Summary Table 2 (Max Limited Emission in Tons per Year (tpy))

Emission Unit	PM	PM10	Lead	SO2	NOx	VOC	CO
Scrap and Charge Handling	4.14	2.48	0.00				
Electric Induction Melting	0.37	1.97	0.01				
Magnesium Treatment	1.77	1.77	0.00				
Pouring Operations	28.98	14.21	0.00	0.14	0.07	0.97	41.40
Cooling Operations	9.66	9.66					
Casting Shakeout	0.44	0.31	0.00			8.28	
Sand Handling System*							
Mold Making Systems	18.63	18.63					
Coldbox Sand Handling	0.04	0.01					
Coldbox Core Making						0.52	
Coldbox Mixers						0.22	
Shell Core Making	0.45	0.45				0.13	
Oil Core Making	0.45	0.45				1.52	
Release Agents						6.86	
Core Wash						12.53	
Sandblast - Spin Blast	2.35	0.23	0.00				
Sandblast - Tumble Blast / Tumbler*							
Tumble Grinding*							
Finish Grinding	0.01	0.01	0.00				
Surface Coating Booth	2.22	2.22				39.90	
BH5 Combined (Sand Handling, Tumble Blast, Tumbler, Snag Grinders, Auto Mold Machines)	28.40	3.99					
Other insignificant	2	2				2	
Total	99.92	58.40	0.01	0.14	0.07	72.92	41.40

* Part of Combined BH5 emission

Thus a FESOP is appropriate as all criteria pollutants have been limited below the 100 tpy Part 70 threshold.

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Summary Table 3 (Potential HAP Emissions in Tons per Year (tpy))

Emission Unit	TEA	Xylene	Glycol Ether	Methyl Isobutyl Ketone	Chromium	Cobalt	Nickel	Arsenic	Cadmium	Selenium	Manganese
Scrap and Charge Handling					0.237	0.001	0.394	0.004	0.002	0.000	0.145
Electric Induction Melting					0.355	0.001	0.591	0.005	0.002	0.000	0.217
Magnesium Treatment					0.710	0.002	1.183	0.010	0.005	0.001	0.434
Pouring Operations					1.656	0.006	2.759	0.024	0.011	0.002	1.012
Cooling Operations					0.552	0.002	0.920	0.008	0.004	0.000	0.337
Casting Shakeout					1.261	0.000	2.102	0.018	0.008	0.001	0.771
Pouring, Cooling, and Casting Shake		1.678									
Coldbox Core Making	66.357										
Sandblast - Spin Blast					0.141	0.011	0.249	0.048	0.022	0.004	2.048
Sandblast - Tumble Blast / Tumbler					0.141	0.011	0.249	0.048	0.022	0.004	2.048
Tumble Grinding							0.000				0.003
Finish Grinding							0.000				0.003
Surface Coating Booth		60.214	3.500	1.480							
Total	66.357	61.892	3.500	1.480	5.053	0.034	8.449	0.166	0.076	0.012	7.015

Emission Unit	Phenol	Benzene	Analine	o-Cresol	Naphthalene	N,N Dimethyl aniline	Toluene	m,p -Cresol	m,p -Xylene	Xylene (Total)	Acetaldehyde
Pouring, Cooling, and Casting Shake	3.145	7.196	1.603	0.810	0.210	0.372	2.834	0.258	0.193	1.678	0.438

	Form aldehyde	Hexane	Other HAPs
Pouring, Cooling, and Casting Shake	0.048	0.201	0.307

Grand Total HAPs 174.317

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Summary Table 4 (Max Limited HAP Emission in Tons per Year)

Emission Unit	TEA	Xylene	Glycol Ether	Methyl Isobutyl Ketone	Chromium	Cobalt	Nickel	Arsenic	Cadmium	Selenium	Manganese
Scrap and Charge Handling					0.037	0.000	0.062	0.001	0.000	0.000	0.023
Electric Induction Melting					0.001	0.000	0.002	0.000	0.000	0.000	0.001
Magnesium Treatment					0.016	0.000	0.027	0.000	0.000	0.000	0.010
Pouring Operations					0.261	0.001	0.435	0.004	0.002	0.000	0.159
Cooling Operations					0.087	0.000	0.145	0.001	0.001	0.000	0.053
Casting Shakeout					0.004	0.000	0.007	0.000	0.000	0.000	0.002
Pouring, Cooling, and Casting Shake		0.264									
Coldbox Core Making	0.066										
Sandblast					0.001	0.000	0.002	0.000	0.000	0.000	0.013
Tumble Grinding							0.000				0.000
Finish Grinding							0.000				0.000
Surface Coating Booth		9.735	3.500	1.480							
Total	0.066	9.999	3.500	1.480	0.407	0.001	0.678	0.006	0.003	0.000	0.261

Emission Unit	Phenol	Benzene	Analine	o-Cresol	Naphthalene	N,N Dimethyl aniline	Toluene	m,p -Cresol	m,p -Xylene	Xylene (Total)	Acetaldehyde
Pouring, Cooling, and Casting Shake	0.495	1.134	0.253	0.128	0.033	0.059	0.446	0.041	0.030	0.264	0.069

	Form aldehyde	Hexane	Other HAPs
Pouring, Cooling, and Casting Shake	0.008	0.032	0.048

Grand Total HAPs 19.314

The operational and throughput limitations for TEA and Xylene have the additional impact of limiting total HAPs below the 25 tpy threshold without further limits.
Thus a FESOP is appropriate as all individual HAPs have been limited below the 10 tpy Part 70 threshold and the combined HAPS are limited below 25 tpy.

Antimony
0.049
0.073
0.146
0.340
0.113
0.259
0.689
0.689
0.000
0.001
2.359
Ethyl benzene
0.307

Antimony
0.008
0.000
0.003
0.054
0.018
0.001
0.004
0.000
0.000
0.088

Ethyl benzene
0.048