INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
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100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: March 17, 2008

RE: Grede Foundries, Inc. / 065-23866-00007

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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

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DRAFT

100 North Senate Avenue
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Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Grede Foundries, Inc.
2700 East Plum Street
New Castle, Indiana 47362

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

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

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

Operation Permit No.: T 065-23866-00007	
Issued by/Original Signed By: Matthew Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: March 17, 2008 Expiration Date: March 17, 2013

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SECTION A SOURCE SUMMARY

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

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

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

Source Address:	2700 East Plum Street, New Castle, Indiana 47362
Mailing Address:	2700 East Plum Street, New Castle, 47362
General Source Phone Number:	765-593-3214
SIC Code:	3321
County Location:	Henry
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4), with Furnace #1 and #2, both constructed in 1968, each having a maximum melt rate of 5.5 tons of ductile iron per hour, and Furnace #3 and #4, both constructed in 1976, each having a maximum melt rate of 5.0 tons of ductile iron per hour, all controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(b) one (1) charge handling system, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, exhausting through general ventilation;

(c) one (1) natural gas-fired scrap preheater, constructed in 1968, with a maximum heat input of 9.84 million (MM) British thermal units (Btu) per hour, and a maximum throughput of 21.0 tons of ductile iron per hour, controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(d) one (1) inoculation process, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, with particulate matter emissions controlled by a collection hood ducted to one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(e) one (1) molding operation (ID No. Mold Line #1), constructed in 1993, consisting of the following:

(1) one (1) sand muller (ID No. Line #1 Muller) and associated feed and discharge belts, with a maximum mold sand throughput of 102.5 tons per hour, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting

through one (1) stack (ID No. S-1);

(2) one (1) metal pouring operation (ID No. Line #1 Pouring), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(3) one (1) metal cooling operation (ID No. Line #1 Cooling), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(4) one (1) mold shakeout operation (ID No. Line #1 Shakeout) and associated shakeout conveyor, with a maximum ductile iron casting throughput of 10.25 tons per hour, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(5) one (1) mold punch up operation, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(6) one (1) casting transfer operation, consisting of the following:

(A) one (1) accumulating shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(B) one (1) degate shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(C) one (1) loader shaker; and

(D) one (1) belt conveyor, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand.

(7) one (1) casting finishing operation, consisting of the following:

(A) two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast), each with a maximum throughput of 5.125 tons per hour of ductile iron castings, both controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10);

(B) four (4) grinders, each with a maximum throughput of 0.89 tons per hour of ductile iron castings, all controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10).

Note: all the above operations which exhaust through stack ID No. S-1, are controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3).

(f) one (1) molding operation (ID No. Mold Line #2), constructed in 1968, consisting of the following:

(1) one (1) sand handling operation (ID No. Line #2 Sand) with a maximum mold

sand throughput of 107.5 tons per hour, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5. The sand handling operations including the sand muller (ID Line #2 Muller), the return sand system, the casting and sand shaker conveyors, the sand transfer belt conveyors, and the sand shaker conveyors;

(2) one (1) metal pouring/cooling operation (ID No. Line #2 Pour/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, exhausting into the building;

(3) one (1) mold punchup/cooling operation (ID No. Line #2 Punchup/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5;

(4) one (1) shakeout operation (ID No. Line #2 Shakeout) with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #2, exhausting through stack S-2;

(5) Two (2) shotblast machines, (ID Nos. #3 Shotblast and #4 Shotblast), each with a maximum throughput of 5.375 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(6) Three (3) grinders, with a total nominal throughput of 2.7 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(7) Four (4) grinders, with a total nominal throughput of 3.6 tons per hour of ductile iron castings, controlled by one (1) dust collector #10, exhausting through stack S-10;

(g) one (1) core sand mixer (ID North Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 2) for particulate matter control which exhausts indoors, and two (2) core machines (ID 103 Core Machine and 106 Core Machine), constructed in 1972 and 1974, respectively, each with a nominal throughput of 5.1 tons of sand per hour with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(h) one (1) core sand mixer (ID South Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 3) for particulate matter control which exhausts indoors, and two (2) core machines (ID N-321 Core Machine and S-321 Core Machine), both constructed in 1976, each with a nominal throughput of 4.08 tons of sand per hour, both with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(i) one (1) core sand mixer (ID New Core Sand Mixer), constructed in 1995, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 4) for particulate matter control which exhausts indoors, and six (6) core machines (ID Disa Core Machine (constructed in 1993), CB-1 Core Machine (constructed in 1992), CB-2 Core Machine (constructed in 1992), CB-3 Core Machine (constructed in 1995), CB-4 Core Machine (constructed in 1995), and CB-5 Core Machine (constructed in 2000)), with the Disa Core Machine having a nominal throughput of 1.77 tons of sand per hour and each of the remaining five (5) core machines with a nominal throughput of 1.5 tons of sand per hour, all with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

No fluxing operation is performed at this plant.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

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

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 dry standard cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including pneumatic conveying as follows:

(1) One (1) pneumatically conveyed core sand reclaim system with one (1) dust collector for particulate matter control, exhausting to the general ventilation. [326 IAC 6-3-2]

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T 065-23866-00007, 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, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.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 2-7-7]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

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

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

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

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

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

and

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

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

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

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

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

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

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

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

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

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, 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

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting one (1) hour or more in accordance with (b)(4) and (5) of this condition shall constitute a violation of this condition B.11 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies lasting one (1) hour or more in the Quarterly Deviation and Compliance Monitoring Report unless the emergency report made pursuant to Condition B.11(b)(5) included a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T 065-23866-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

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

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

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

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

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

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

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

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

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2 and/or 326 IAC 2-3 (for sources located in NA areas).

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

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

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 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. 326 IAC 4-1-3 (a) (2) (D) and (E); 4-1-3 (b) (2) (A) & (B); 4-1-3 (b) (3) (D), 4-1-3 (b) (4) & (5); 4-1-3 (c) (1) (B)-(F); 4-1-3 (c) (2) (B); 4-1-3 (c) (6); 4-1-3 (c) (8); and 4-1-6 are not federally enforceable.

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

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

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

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

C.6 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

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

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

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

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

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

C.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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

(d) The Permittee may request an extension of a deadline to conduct testing as provided by 40 CFR 60.8, 61.13, or 63.7.

(e) In addition to any other testing required by this permit if at any time the Permittee replaces a control device that is used to comply with an emission limitation listed in Section D, then the Permittee shall conduct a performance test no later than one hundred eighty (180) days after installation of the replacement control device in accordance with this Condition C.8.

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 or the U. S. EPA.

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

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

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

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

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

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on August 1, 1996.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal

or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; 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.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

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

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), where there is a reasonable possibility that the project, which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in a significant emissions increase, and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4), with Furnace #1 and #2, both constructed in 1968, each having a maximum melt rate of 5.5 tons of ductile iron per hour, and Furnace #3 and #4, both constructed in 1976, each having a maximum melt rate of 5.0 tons of ductile iron per hour, all controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(b) one (1) charge handling system, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, exhausting through general ventilation;

(c) one (1) natural gas-fired scrap preheater, constructed in 1968, with a maximum heat input of 9.84 million (MM) British thermal units (Btu) per hour, and a maximum throughput of 21.0 tons of ductile iron per hour, controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(d) one (1) inoculation process, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, with particulate matter emissions controlled by a collection hood ducted to one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

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

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

D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), the particulate matter (PM) emissions from the equipment listed above shall not exceed the pound per hour emission rate as given in the table below:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lbs/hr)
Electric Induction Furnace #1	5.5	12.85
Electric Induction Furnace #2	5.5	12.85
Electric Induction Furnace #3	5.0	12.05
Electric Induction Furnace #4	5.0	12.05
Charge Handling System	21.0	31.53
Scrap Preheater	21.0	31.53
Inoculation Process	21.0	31.53

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

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

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-1.1-11]

In order to determine compliance with Condition D.1.1, the Permittee shall perform PM testing on Dust Collector #7 controlling emissions from the electric induction furnaces, scrap preheater and inoculation process utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration (Grede Foundries conducted PM testing on Dust Collector #7 on October 10, 2007). Testing shall be conducted in accordance with Section C -- Performance Testing.

D.1.3 Particulate Matter (PM)

Collector #7 shall be in operation at all times the inoculation process is in operation.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) one (1) molding operation (ID No. Mold Line #1), constructed in 1993, consisting of the following:

(1) one (1) sand muller (ID No. Line #1 Muller) and associated feed and discharge belts, with a maximum mold sand throughput of 102.5 tons per hour, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(2) one (1) metal pouring operation (ID No. Line #1 Pouring), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(3) one (1) metal cooling operation (ID No. Line #1 Cooling), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(4) one (1) mold shakeout operation (ID No. Line #1 Shakeout) and associated shakeout conveyor, with a maximum ductile iron casting throughput of 10.25 tons per hour, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(5) one (1) mold punch up operation, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(6) one (1) casting transfer operation, consisting of the following:

(A) one (1) accumulating shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(B) one (1) degate shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(C) one (1) loader shaker; and

(D) one (1) belt conveyor, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand.

(7) one (1) casting finishing operation, consisting of the following:

(A) two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast), each with a maximum throughput of 5.125 tons per hour of ductile iron castings, both controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10);

(B) four (4) grinders, each with a maximum throughput of 0.89 tons per hour of ductile iron castings, all controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10).

Note: all the above operations which exhaust through stack ID No. S-1, are controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3).

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

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

D.2.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to SPM 065-16577-00007, issued on March 11, 2005, the following limits were established:

(a) Emissions of PM and PM-10 shall be limited as follows:

(1) PM and PM10 emissions from the Mold Line #1 sand muller, pouring, cooling, shakeout, punch up, and casting transfer operation that exhaust through stack S-1 shall be less than 18.27 and 8.5 pounds per hour, respectively;

(2) PM and PM10 emissions from Shot Blast #1, Shot Blast #2, and the four grinders that exhaust through stack S-10 shall be less than 0.66 and 1.5 pound per hour, respectively;

(3) PM and PM10 emissions from the North Core Sand Mixer, listed in section D.4, shall be less than 1.40 and 0.54 pounds per hour, respectively; and

(4) PM and PM10 emissions from the South Core Sand Mixer, listed in section D.4, shall be less than 1.40 and 0.54 pounds per hour, respectively.

(b) VOC emissions from the Mold Line #1 pouring, cooling and shakeout operations shall not exceed 1.34 pounds of VOC per ton of metal charged;

(c) The throughput of metal to Mold Line #1 shall be less than 76,572 tons per twelve (12) consecutive month period.

These limits will insure that PM and PM10 emissions (including the contemporaneous decrease in emissions from the replacement of the older mold line in 1993), shall be less than the PSD major modification thresholds of 25 and 15 tons per year, respectively. The metal throughput limit and the VOC emission limits will insure that VOC emissions (including the contemporaneous decrease in emissions from the replacement of the older mold line in 1993,) from Mold Line #1 shall be less than the PSD major modification threshold of 40 tons per year. Therefore, compliance with these limits makes 326 IAC 2-2 (PSD) not applicable to the 1993 modification. If Mold Line #1 emissions reach 25 tons per year of PM, 15 tons per year of PM_{10}, or 40 tons per year of VOC, Mold Line #1 will be subject to PSD review.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), the particulate matter emissions from the equipment listed above shall not exceed the pound per hour emission rate as given in the table below:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lbs/hr)
Mold Line 1 Sand Muller	102.5	51.53
Mold Line #1 Pouring Operation	112.75	52.49
Mold Line #1 Cooling Operation	112.75	52.49
Mold Line #1 Shakeout Operation	112.75	52.49
Mold Line #1 Punch Up Operation	112.75	52.49
Casting Transfer Operation	112.75	52.49
Shot Blast #1	5.125	12.25
Shot Blast #2	5.125	12.25
Mold Line #1 Grinders	0.89 (each)	3.79 (each)

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

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

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to CP 065-2749-00007, issued on March 24,1993, BACT for the #1 Mold Line Pouring and Shakeout operations shall be the following:

(a) VOC emissions from the Mold Line #1 Pouring, Cooling and Shakeout operations shall not exceed 1.34 pounds of VOC per ton of metal charged;

(b) The throughput of metal to Mold Line #1 shall be less than 76,572 tons per twelve (12) consecutive month period.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the control devices for Collector #10.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-1.1-11]

In order to determine compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM_{10} testing on Dust Collectors #1 and #3 controlling emissions from the metal pouring, metal cooling, mold shakeout, mold punch up, casting transfer, and sand handling operations; and PM and PM_{10} testing on Dust Collector #10 controlling emissions from the casting finishing operations utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration (Grede Foundries conducted PM testing on Collectors #1 and #3 on October 10, 2007 and PM_{10} testing

on Collectors #1 and # 3 on April 1, 2003; and PM and PM_{10} testing on Collector # 10 on April 2, 2003). PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C -- Performance Testing.

D.2.6 Particulate Matter (PM)

Collector #1 and Collector #3 shall be in operation at all times the Mold Line #1 sand muller is in operation, in order to comply with this limit.

Collector #10 shall be in operation at all times the shot blast #1 is in operation, in order to comply with this limit.

Collector #10 shall be in operation at all times the shot blast #2 is in operation, in order to comply with this limit.

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

D.2.7 Visible Emissions Notation

(a) Visible emission notations of stack S-10 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.2.8 Parametric Monitoring

The Permittee shall record the pressure drop across Dust Collector # 10 used in conjunction with Mold Line #1, at least once per day when Mold Line #1 is in operation. When for any one reading, the pressure drop across Collector #10 is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered a violation of this permit.

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

D.2.9 Broken or Failed Bag Detection

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

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

Bag failure can be indicated by a significant drop in the 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 2-7-5(3)] [326 IAC 2-7-19]

D.2.10 Record Keeping Requirement

(a) To document compliance with Conditions D.2.1 and D.2.3, the Permittee shall maintain records of the monthly metal throughputs to Mold Line #1.

(b) To document compliance with Condition D.2.7, the Permittee shall maintain a daily record of visible emission notations of the facilities' stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(c) To document compliance with Condition D.2.8, the Permittee shall maintain daily records of the pressure drop across Dust Collector #10 controlling emissions from the shot blasts. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.2.11 Reporting Requirement

A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the responsible official as defined by 326 IAC 2-7-1(34).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) one (1) molding operation (ID No. Mold Line #2), constructed in 1968, consisting of the following:

(1) one (1) sand handling operation (ID No. Line #2 Sand) with a maximum mold sand throughput of 107.5 tons per hour, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5. The sand handling operations including the sand muller (ID Line #2 Muller), the return sand system, the casting and sand shaker conveyors, the sand transfer belt conveyors, and the sand shaker conveyors;

(2) one (1) metal pouring/cooling operation (ID No. Line #2 Pour/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, exhausting into the building;

(3) one (1) mold punchup/cooling operation (ID No. Line #2 Punchup/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5;

(4) one (1) shakeout operation (ID No. Line #2 Shakeout) with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #2, exhausting through stack S-2;

(5) Two (2) shotblast machines, (ID Nos. #3 Shotblast and #4 Shotblast), each with a maximum throughput of 5.375 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(6) Three (3) grinders, with a total nominal throughput of 2.7 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(7) Four (4) grinders, with a total nominal throughput of 3.6 tons per hour of ductile iron castings, controlled by one (1) dust collector #10, exhausting through stack S-10;

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

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

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), the particulate matter emissions from the equipment listed above shall not exceed the pound per hour emission rate as given in the table below:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lbs/hr)
Mold Line #2 Sand Handling	107.5	52.01
Mold Line #2 Pouring/Cooling Operation	118.25	52.98
Mold Line #2 Punchup/Cooling Operation	118.25	52.98
Mold Line #2 Shakeout Operation	118.25	52.98
Shot Blast #3	5.375	12.65
Shot Blast #4	5.375	12.65
3 grinders exhausting to S-6	2.70	7.98
4 grinders exhausting to S-10	3.6	9.67

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

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

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

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

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Dust Collectors #5, #6, and #10.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-1.1-11]

In order to determine compliance with Condition D.3.1, the Permittee shall perform PM testing on Dust Collector #5 controlling emissions from the mold punchup/cooling and Dust Collector #6 controlling emissions from shot blast #3 and shot blast #4; utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration (Grede Foundries conducted PM testing on Dust Collector #5 on July 20, 2005; and on Dust Collector #6 on July 19, 2005) . Testing shall be conducted in accordance with Section C -- Performance Testing.

D.3.4 Particulate Matter (PM)

Collector #5 shall be in operation at all times the Mold Line #2 sand handling operation is in operation, in order to comply with this limit.

Collector #6 shall be in operation at all times the shot blast #3 is in operation, in order to comply with this limit.

Collector #6 shall be in operation at all times the shot blast #4 is in operation in order to comply with this limit.

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

D.3.5 Visible Emissions Notations

(a) Visible emission notations of the Mold Line #2 stack exhausts (ID Nos. S-5, S-6 and S-10) 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.3.6 Parametric Monitoring

The Permittee shall record the pressure drop across each of the three (3) dust collectors used in conjunction with Mold Line #2 and the dust collector for the four grinders, at least once per day when Mold Line #2 is in operation when venting to the atmosphere. When for any one reading, the pressure drop across Collector #10 is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test; and Collector #5 is outside the normal range of 2.0 to 8.0 inches of water or a range established during the latest stack test; and Collector #6 is outside the normal range of 3.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response to Excursions and Exceedances, shall be considered a violation of this permit.

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

D.3.7 Broken or Failed Bag Detection

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

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

Bag failure can be indicated by a significant drop in the 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 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirement

(a) To document compliance with Condition D.3.5, the Permittee shall maintain a daily record of visible emission notations of the facilities' stack exhaust. 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.3.6, the Permittee shall maintain daily records of the pressure drop across Dust Collector #5 controlling emissions from the Line #2 Sand and Line #2 Punch up/Cool; Dust Collector #6 controlling emissions from Shot blast #3, Shot blast #4, and the three grinders exhausting to S-6. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f) one (1) core sand mixer (ID North Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 2) for particulate matter control which exhausts indoors, and two (2) core machines (ID 103 Core Machine and 106 Core Machine), constructed in 1972 and 1974, respectively, each with a nominal throughput of 5.1 tons of sand per hour with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(g) one (1) core sand mixer (ID South Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 3) for particulate matter control which exhausts indoors, and two (2) core machines (ID N-321 Core Machine and S-321 Core Machine), both constructed in 1976, each with a nominal throughput of 4.08 tons of sand per hour, both with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(h) one (1) core sand mixer (ID New Core Sand Mixer), constructed in 1995, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 4) for particulate matter control which exhausts indoors, and six (6) core machines (ID Disa Core Machine (constructed in 1993), CB-1 Core Machine (constructed in 1992), CB-2 Core Machine (constructed in 1992), CB-3 Core Machine (constructed in 1995), CB-4 Core Machine (constructed in 1995), and CB-5 Core Machine (constructed in 2000)), with the Disa Core Machine having a nominal throughput of 1.77 tons of sand per hour and each of the remaining five (5) core machines with a nominal throughput of 1.5 tons of sand per hour, all with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the 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 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to SPM 065-16577-00007, issued on March 11, 2005, in order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) The total resin usage for core machines CB-1 and CB-2 shall be less than 271,636 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. Total DMEA usage for core machines CB-1 and CB-2 shall be less than 36,218 pounds of DMEA per 12 consecutive month period with compliance determined at the end of each month.

(b) The total resin usage for core machines CB-3 and CB-4 shall be less than 271,636 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. DMEA usage for core machines CB-3 and CB-4 shall be less than 36,218 pounds of DMEA per 12 consecutive month period with compliance determined at the end of each month.

(c) The total resin usage for core machine CB-5 shall be less than 271,636 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. DMEA usage for core machine CB-5 shall be less than 36,218 pounds of DMEA per 12

consecutive month period with compliance determined at the end of each month.

(d) The total resin usage for the DISA core machine shall be less than 271,636 pounds of resin per 12 consecutive month period with compliance determined at the end of each month. DMEA usage for the DISA core machine shall be less than 36,218 pounds of DMEA per 12 consecutive month period with compliance determined at the end of each month.

(e) The VOC emissions (not including DMEA) from core machines CB-1, CB-2, CB-3, CB-4, CB-5, and DISA shall not exceed 0.05 pounds per pound of resin.

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (BACT) not applicable. Compliance with these limits and Conditions D.2.1 and D.2.3 is also necessary to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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

Pursuant to SPM 065-16577-00007, issued on March 11, 2005, the following limits have been established:

(a) PM and PM10 emissions from the North Core Sand Mixer shall be less than 1.40 and 0.54 pounds per hour, respectively;

(b) PM and PM10 emissions from the South Core Sand Mixer shall be less than 1.40 and 0.54 pounds per hour, respectively.

These limits, in addition to the PM and PM10 limits in condition D.2.1(a)(1) and (2), will insure that PM and PM10 emissions (including the contemporaneous decrease in emissions from the replacement of the older mold line in 1993, per CP 065-2749-00007) do not exceed the PSD major modification thresholds of 25 and 15 tons per year, respectively.

(c) Emissions of PM and PM-10 from the one (1) sand mixer (ID New Core Sand Mixer), installed in 1995, shall be less than 5.68 and 3.40 pounds per hour, respectively. These limits will insure that PM and PM10 emissions do not exceed the PSD major modification thresholds of 25 tons per year for PM and 15 tons per year for PM10.

Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.4.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), the particulate matter emissions from the equipment listed above shall not exceed the pound per hour emission rate as given in the table below:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lbs/hr)
North Core Sand Mixer	9.0	17.87
South Core Sand Mixer	9.0	17.87
New Core Sand Mixer	9.0	17.87

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

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

Compliance Determination Requirements

D.4.4 VOC Emissions

Compliance with Conditions D.4.1 shall be demonstrated within 30 days of the end of each month based on the total resin and DMEA catalyst usage for the twelve (12) month period.

D.4.5 Particulate Matter (PM)

The three (3) dust collectors (ID Bin Vents 2, 3, and 4) shall be in operation and control emissions from the three (3) sand mixers at all times that the three (3) sand mixers are in operation.

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

D.4.6 Record Keeping Requirement

(a) To document compliance with Conditions D.4.1 (a), (b), (c) and (d), the Permittee shall maintain records of the DMEA and resin usages for each of core machines CB-1, CB-2, CB-3, CB-4, CB-5, and Disa each month.

(b) To document compliance with Condition D.4.1 (e), the Permittee shall maintain records to demonstrate there has been no change in the type of binder materials used for core machines CB-1, CB-2, CB-3, CB-4, CB-5, and Disa each month.

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

D.4.7 Reporting Requirement

A quarterly summary of the information to document compliance with Conditions D.4.1 (a), (b), (c), and (d) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities

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 dry standard cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including pneumatic conveying as follows:

(1) One (1) pneumatically conveyed core sand reclaim system with one (1) dust collector for particulate matter control, exhausting to the general ventilation. [326 IAC 6-3-2]

(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 2-7-5(1)]

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

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the core sand reclaim system, an insignificant activity, shall not exceed 8.56 pounds per hour, when operating at a process weight rate of 6,000 pounds of sand per hour.

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

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

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

Compliance Determination Requirements

D.5.2 Particulate Matter (PM)

The dust collector for particulate matter control shall be in operation at all times that the core sand reclaim system is in operation.

SECTION E.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

Emissions Unit Description:

(1) **Electric Induction Melt Furnaces**

four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4), with Furnace #1 and #2, both constructed in 1968, each having a maximum melt rate of 5.5 tons of ductile iron per hour, and Furnace #3 and #4, both constructed in 1976, each having a maximum melt rate of 5.0 tons of ductile iron per hour, all controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(2) **Scrap Preheater**

one (1) natural gas-fired scrap preheater, constructed in 1968, with a maximum heat input of 9.84 million (MM) British thermal units (Btu) per hour, and a maximum throughput of 21.0 tons of ductile iron per hour, controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(3) **Pouring Operations**

one (1) metal pouring operation (ID No. Line #1 Pouring), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

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

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.7760, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected facilities as specified in Table 1 of 40 CFR 63, Subpart EEEEE in accordance with schedule in 40 CFR 63 Subpart EEEEE.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

and

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

.

E.1.2 Iron and Steel Foundries Requirements [40 CFR Part 63, Subpart EEEEE]

Pursuant to CFR Part 63, Subpart EEEEE, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart EEEEE (included as Attachment A), for the electric induction melt furnaces, scrap preheater, and pouring operation:

40 CFR 63.7680
40 CFR 63.7681
40 CFR 63.7682 (a)-(c)
40 CFR 63.7683 (a) (b) and (f)
40 CFR 63.7690 (a)(1), (5), (7)
40 CFR 63.7700 (a)-(c), (e)
40 CFR 63.7710 (a)-(b) (1),(3)-(6)
40 CFR 63.7720 (a)-(c)
40 CFR 63.7730 (a)-(b)
40 CFR 63.7731 (a)-(b)
40 CFR 63.7732 (a); (b)(1), (2), (4),(5), and 6; (c) (1),(2),(4),(5);(d);(h);(i)
40 CFR 63.7733 (f)
40 CFR 63.7734 (a)(1),(5), (7)
40 CFR 63.7735 (a),(b),(d)
40 CFR 63.7736 (c) and (d)
40 CFR 63.7740 (b) and (c)
40 CFR 63.7741 (b) and (f)
40 CFR 63.7742 (a)-(c)
40 CFR 63.7743(a)(1),(5), (7), (12)
40 CFR 63.7744 (a) and (c)
40 CFR 63.7745
40 CFR 63.7746
40 CFR 63.7747
40 CFR 63.7750
40 CFR 63.7751
40 CFR 63.7752
40 CFR 63.7753
40 CFR 63.7760
40 CFR 63.7761
40 CFR 63.7765

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

Source Name: Grede Foundries, Inc.
Source Address: 2700 East Plum Street, New Castle, Indiana 47362
Mailing Address: 2700 East Plum Street, New Castle, 47362
Part 70 Permit No.: T 065-23866-00007

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:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Grede Foundries, Inc.
Source Address: 2700 East Plum Street, New Castle, Indiana 47362
Mailing Address: 2700 East Plum Street, New Castle, 47362
Part 70 Permit No.: T 065-23866-00007

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

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Grede Foundries, Inc.
Source Address: 2700 East Plum Street, New Castle, Indiana 47362
Mailing Address: 2700 East Plum Street, New Castle, 47362
Part 70 Permit No.: T 065-23866-00007
Facility: Mold Line #1
Parameter: Metal Throughput
Limit: Pursuant to CP 065-2749-00007, issued March 24, 1993, the maximum metal throughput to Mold Line #1 shall be limited to 76,572 tons per twelve (12) consecutive month period, rolled on a monthly basis

QUARTER : 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

Part 70 Quarterly Report

Source Name: Grede Foundries, Inc. - New Castle
Source Address: 2700 East Plum Street, New Castle, Indiana 47362
Mailing Address: 2700 East Plum Street, New Castle, Indiana 47362
Part 70 Permit No.: T 065-23866-00007
Facility: Core Machines CB-1, CB-2, CB-3, CB-4, CB-5, and Disa
Parameter: Resin and DMEA catalyst usage to limit VOC emissions to less than 25 tons/year.
Limits:

(a) The total resin usage for core machines CB-1 and CB-2 shall not exceed 271,636 pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-1 and CB-2 shall not exceed 36,218 pounds of DMEA per 12 consecutive month period.

(b) The total resin usage for core machines CB-3 and CB-4 shall not exceed 271,636 pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-3 and CB-4 shall not exceed 36,218 pounds of DMEA per 12 consecutive month period.

(c) The total resin usage for core machine CB-5 shall not exceed 271,636 pounds of resin per 12 consecutive month period. DMEA usage for core machine CB-5 shall not exceed 36,218 pounds of DMEA per 12 consecutive month period.

(d) The resin usage for the DISA core machine shall not exceed 271,636 pounds of resin per 12 consecutive month period. DMEA usage for the DISA core machine shall not exceed 36,218 pounds of DMEA per 12 consecutive month period.

YEAR: _____

Month	Core Machine ID	Column 1		Column 2		Column 1 + Column 2	
		Resin Usage This Month (lbs)	DMEA Catalyst Usage This Month (lbs)	Resin Usage for Previous 11 Months (lbs)	DMEA Catalyst Usage for Previous 11 Months (lbs)	12 Month Total Resin Usage (lbs)	12 Month Total DMEA Catalyst Usage (lbs)
	CB-1 & CB-2						
	CB-3 & CB-4						
	CB-5						
	DISA						
	CB-1 & CB-2						
	CB-3 & CB-4						
	CB-5						
	DISA						
	CB-1 & CB-2						
	CB-3 & CB-4						
	CB-5						
	DISA						

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Grede Foundries, Inc.
Source Address: 2700 East Plum Street, New Castle, Indiana 47362
Mailing Address: 2700 East Plum Street, New Castle, 47362
Part 70 Permit No.: T 065-23866-00007

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 "No 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.

Attachment A, NESHAP Subpart EEEEE

Grede Foundries, Inc.
2700 East Plum Street
New Castle, Indiana 47362

Permit No.: T 065-23866-00007

Source: 69 FR 21923, Apr. 22, 2004, unless otherwise noted.

What this Subpart Covers

§ 63.7680 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for iron and steel foundries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.

§ 63.7681 Am I subject to this subpart?

You are subject to this subpart if you own or operate an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year as defined in §63.2.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

§ 63.7682 What parts of my foundry does this subpart cover?

(a) The affected source is each new or existing iron and steel foundry.

(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.

(d) An affected source is new if you commenced construction or reconstruction of the affected source on or after December 23, 2002. An affected source is reconstructed if it meets the definition of “reconstruction” in §63.2.

§ 63.7683 When do I have to comply with this subpart?

(a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 23, 2007. Major source status for existing affected sources must be determined no later than April 23, 2007.

(b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.

(c) If you have a new affected source for which the initial startup date is on or before April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 22, 2004.

(d) If you have a new affected source for which the initial startup date is after April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(e) If your iron and steel foundry is an area source that becomes a major source of HAP, you must meet the requirements of §63.6(c)(5).

(f) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.

Emissions Limitations

§ 63.7690 What emissions limitations must I meet?

(a) You must meet the emissions limits or standards in paragraphs (a)(1) through (11) of this section that apply to you. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in paragraph (a)(1)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(1)(ii) of this section:

(i) 0.005 grains of PM per dry standard cubic foot (gr/dscf), or

(ii) 0.0004 gr/dscf of total metal HAP.

(2) For each cupola metal melting furnace at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(2)(i) or (ii) of this section or, alternatively the limit for total metal HAP in paragraph (a)(2)(iii) or (iv) of this section:

(i) 0.006 gr/dscf of PM; or

(ii) 0.10 pound of PM per ton (lb/ton) of metal charged, or

(iii) 0.0005 gr/dscf of total metal HAP; or

(iv) 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(3)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(3)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed

either the limit for PM in paragraph (a)(4)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(4)(ii) of this section:

(i) 0.001 gr/dscf of PM, or

(ii) 0.00008 gr/dscf of total metal HAP.

(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:

(i) 0.010 gr/dscf of PM, or

(ii) 0.0008 gr/dscf of total metal HAP.

(6) For each pouring area or pouring station at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(6)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(6)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, you must not discharge emissions of volatile organic hazardous air pollutants (VOHAP) through a conveyance to the atmosphere that exceed 20 parts per million by volume (ppmv) corrected to 10 percent oxygen.

(9) As an alternative to the work practice standard in §63.7700(e) for a scrap preheater at an existing iron and steel foundry or in §63.7700(f) for a scrap preheater at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed a flow-weighted average of 20 ppmv.

(11) For each triethylamine (TEA) cold box mold or core making line at a new or existing iron and steel foundry, you must meet either the emissions limit in paragraph (a)(11)(i) of this section or, alternatively the emissions standard in paragraph (a)(11)(ii) of this section:

(i) You must not discharge emissions of TEA through a conveyance to the atmosphere that exceed 1 ppmv, as determined according to theperformance test procedures in § 63.7732(g); or

(ii) You must reduce emissions of TEA from each TEA cold box mold or core making line by at least 99 percent, as determined according to the performance test procedures in § 63.7732(g).

(b) You must meet each operating limit in paragraphs (b)(1) through (5) of this section that applies to you.

(1) You must install, operate, and maintain a capture and collection system for all emissions sources subject to an emissions limit for VOHAP or TEA in paragraphs (a)(8) through (11) of this section.

(i) Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(ii) You must operate each capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan.

(2) You must operate each wet scrubber applied to emissions from a metal melting furnace, scrap preheater, pouring area, or pouring station subject to an emissions limit for PM or total metal HAP in paragraphs (a)(1) through (6) of this section such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test.

(3) You must operate each combustion device applied to emissions from a cupola metal melting furnace subject to the emissions limit for VOHAP in paragraph (a)(8) of this section, such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average.

(4) You must operate each combustion device applied to emissions from a scrap preheater subject to the emissions limit for VOHAP in paragraph (a)(9) of this section or from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section, such that the 3-hour average combustion zone temperature does not fall below the minimum level established during the initial or subsequent performance test.

(5) You must operate each wet acid scrubber applied to emissions from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section such that:

(i) The 3-hour average scrubbing liquid flow rate does not fall below the minimum level established during the initial or subsequent performance test; and

(ii) The 3-hour average pH of the scrubber blowdown, as measured by a continuous parameter monitoring system (CPMS), does not exceed 4.5 or the pH of the scrubber blowdown, as measured once every 8 hours during process operations, does not exceed 4.5.

(c) If you use a control device other than a baghouse, wet scrubber, wet acid scrubber, or combustion device, you must prepare and submit a monitoring plan containing the information listed in paragraphs (c)(1) through (5) of this section. The monitoring plan is subject to approval by the Administrator.

(1) A description of the device;

(2) Test results collected in accordance with §63.7732 verifying the performance of the device for reducing emissions of PM, total metal HAP, VOHAP, or TEA to the levels required by this subpart;

(3) A copy of the operation and maintenance plan required by §63.7710(b);

(4) A list of appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limitation(s); and

(5) Operating parameter limits based on monitoring data collected during the performance test.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

Work Practice Standards

§ 63.7700 What work practice standards must I meet?

(a) For each segregated scrap storage area, bin or pile, you must either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section. You may have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.

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

(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.

(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or

(ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastic, and a program to ensure the scrap materials are drained of free liquids.

(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must either obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable, or document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.

(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.

(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.

(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.

(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.

(iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.

(d) For each furan warm box mold or core making line in a new or existing iron and steel foundry, you must use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet. This requirement does not apply to the resin portion of the binder system.

(e) For each scrap preheater at an existing iron and steel foundry, you must meet either the requirement in paragraph (e)(1) or (2) of this section. As an alternative to the requirement in paragraph (e)(1) or (2) of this section, you must meet the VOHAP emissions limit in §63.7690(a)(9).

(1) You must operate and maintain a gas-fired preheater where the flame directly contacts the scrap charged; or

(2) You must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section.

(f) For each scrap preheater at a new iron and steel foundry, you must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section. As an alternative to this requirement, you must meet the VOHAP emissions limit in §63.7690(a)(9).

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7218, February 7, 2008]

Operation and Maintenance Requirements

§ 63.7710 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to a PM, metal HAP, TEA, or VOHAP emissions limit in §63.7690(a). Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.

(1) Monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.

(2) Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11). You must establish the operating according to the requirements in paragraphs (b)(2)(i) through (iii) of this section.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting.

(ii) For each operating limit parameter selected in paragraph (b)(2)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (i.e., the operating limits with one furnace melting, two melting, as applicable to your plant).

(iii) Include documentation in your plan to support your selection of the operating limits established for your capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the

requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations.

(3) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(4) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output will be recorded and stored.

(5) Corrective action plan for each baghouse. The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Making process changes.

(vii) Shutting down the process producing the PM emissions.

(6) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not

ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and

(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

General Compliance Requirements

§ 63.7720 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, or malfunction.

(b) During the period between the compliance date specified for your iron and steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

Initial Compliance Requirements

§ 63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after the compliance date that is specified in §63.7683 for your iron and steel foundry to demonstrate initial compliance with each emissions limitation in §63.7690 that applies to you.

(b) For each work practice standard in §63.7700 and each operation and maintenance requirement in §63.7710 that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than 30 calendar days after the compliance date that is specified for your iron and steel foundry in §63.7683.

(c) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, you must demonstrate initial compliance with either the proposed emissions limit or the

promulgated emissions limit no later than October 19, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, and you chose to comply with the proposed emissions limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emissions limit by October 19, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

§ 63.7731 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emissions limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years and each time you elect to change an operating limit or to comply with a different alternative emissions limit, if applicable. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.

(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?

(a) You must conduct each performance test that applies to your iron and steel foundry based on your selected compliance alternative, if applicable, according to the requirements in §63.7(e)(1) and the conditions specified in paragraphs (b) through (i) of this section.

(b) To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater. For a cupola metal melting furnace at an existing iron and steel foundry that is subject to the PM emissions limit in §63.7690(a)(ii), calculate the PM emissions rate in pounds of PM per ton (lb/ton) of metal charged using Equation 1 of this section:

$$EF_{PM} = C_{PM} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7{,}000} \right) \qquad \text{(Eq. 1)}$$

Where:

EF_{PM} = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged;

C_{PM} = Concentration of PM measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm);

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and
7,000 = Unit conversion factor, grains per pound (gr/lb).

(c) To determine compliance with the applicable emissions limit for total metal HAP in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (6) of this section.

(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 29 to determine the total metal HAP concentration.

(2) A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater during each performance test run and calculate the total metal HAP emissions rate (pounds of total metal HAP per ton (lb/ton) of metal charged) using Equation 2 of this section:

$$EF_{TMHAP} = C_{TMHAP} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7{,}000} \right) \qquad \text{(Eq. 2)}$$

Where:

EF_{TMHAP} = Emissions rate of total metal HAP, pounds of total metal HAP per ton (lb/ton) of metal charged;

C_{TMHAP} = Concentration of total metal HAP measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dscfm;

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, gr/lb.

(d) To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and §63.6(h)(5). The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.

(2) During testing intervals when PM performance tests, if applicable, are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests.

(e) To determine compliance with the applicable VOHAP emissions limit in §63.7690(a)(8) for a cupola metal melting furnace or in §63.7690(a)(9) for a scrap preheater, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.

(1) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO) or Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas.

(2) Determine the average VOHAP, TGNMO, or TOC concentration using a minimum of three valid test runs. Each test run must include a minimum of 60 continuous operating minutes.

(3) For a cupola metal melting furnace, correct the measured concentration of VOHAP, TGNMO, or
TOC for oxygen content in the gas stream using Equation 3 of this section:

$$C_{VOHAP,10\%O_2} = C_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 3)}$$

Where:

C_{VOHAP} = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A; and

$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis).

(4) For a cupola metal melting furnace, measure the combustion zone temperature of the combustion device with the CPMS required in §63.7740(d) during each sampling run in 15-minute intervals. Determine and record the 15-minute average of the three runs.

(f) Follow the applicable procedures in paragraphs (f)(1) through (3) of this section to determine compliance with the VOHAP emissions limit in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines.

(1) Follow these procedures to demonstrate compliance by direct measurement of total hydrocarbons (a surrogate for VOHAP) using a volatile organic compound (VOC) CEMS.

(i) Using the VOC CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) for 180 continuous operating minutes. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Reduce the monitoring data to hourly averages as specified in §63.8(g)(2).

(iii) Compute and record the 3-hour average of the monitoring data.

(2) As an alternative to the procedures in paragraph (f)(1) of this section, you may demonstrate compliance with the VOHAP emissions limit in §63.7690(a)(10) by establishing a site-specific TOC emissions limit that is correlated to the VOHAP emissions limit according to the procedures in paragraph (f)(2)(i) through (ix) of this section.

(i) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraph (f)(2)(ii) through (vi) of this section.

(ii) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(iii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iv) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(v) Method 4 to determine the moisture content of the stack gas.

(vi) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of TGNMO using hexane as the calibration gas.

(vii) Using the CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) during each of the Method 18 (or Method 25) sampling runs. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(viii) Calculate the average VOHAP (or TGNMO) concentration for the source test as the arithmetic average of the concentrations measured for the individual test runs, and determine the average concentration of total hydrocarbon (as hexane) as measured by the CEMS during all test runs.

(ix) Calculate the site-specific VOC emissions limit using Equation 4 of this section:

$$VOC_{limit} = 20x\frac{C_{VOHAP,avg}}{C_{CEM}} \qquad \text{(Eq. 4)}$$

Where:

$C_{VOHAP,avg}$ = Average concentration of VOHAP for the source test in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the average concentration of TGNMO for the source test in ppmv as hexane as measured by Method 25 in 40 CFR part 60, appendix A; and

C_{CEM} = Average concentration of total hydrocarbons in ppmv as hexane as measured using the CEMS during the source test.

(3) For two or more exhaust streams from one or more automated conveyor and pallet cooling lines or automated shakeout lines, compute the flow-weighted average concentration of VOHAP emissions for each combination of exhaust streams using Equation 5 of this section:

$$C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 5)}$$

Where:

C_W = Flow-weighted concentration of VOHAP or VOC, ppmv (as hexane);

C_i = Concentration of VOHAP or VOC from exhaust stream ''i'', ppmv (as hexane);

n = Number of exhaust streams sampled; and

Q_i = Volumetric flow rate of effluent gas from exhaust stream ''i,'', dscfm.

(g) To determine compliance with the emissions limit or standard in §63.7690(a)(11) for a TEA cold box mold or core making line, follow the test methods in 40 CFR part 60, appendix A, specified in paragraphs (g)(1) through (4) of this section.

(1) Determine the TEA concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (g)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. If you elect to meet the 99 percent reduction standard, sampling sites must be located both at the inlet to the control device and at the outlet of the control device prior to any releases to the atmosphere. If you elect to meet the concentration limit, the sampling site must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the TEA concentration. Alternatively, you may use NIOSH Method 2010 (incorporated by reference—see §63.14) to determine the TEA concentration provided the performance requirements outlined in section 13.1 of EPA Method 18 are satisfied. The sampling option and time must be sufficiently long such that either the TEA concentration in the field sample is at least 5 times the limit of detection for the analytical method or the test results calculated using the laboratory's reported analytical detection limit for the specific field samples are less than 1⁄5 of the applicable emissions limit. When using
Method 18, the adsorbent tube approach, as described in section 8.2.4 of Method 18, may be required to achieve the necessary analytical detection limits. The sampling time must be at least 1 hour in all cases.

(2) If you use a wet acid scrubber, conduct the test as soon as practicable after adding fresh acid solution and the system has reached normal operating conditions.

(3) If you use a wet acid scrubber that is subject to the operating limit in §63.7690(b)(5)(ii) for pH level, determine the pH of the scrubber blowdown using the procedures in paragraph (g)(3)(i) or (ii) of this section.

(i) Measure the pH of the scrubber blowdown with the CPMS required in §63.7740(f)(2) during each TEA sampling run in intervals of no more than 15 minutes. Determine and record the 3-hour average; or

(ii) Measure and record the pH level using the probe and meter required in §63.7740(f)(2) once each sampling run. Determine and record the average pH level for the three runs.

(4) If you are subject to the 99 percent reduction standard, calculate the mass emissions reduction using Equation 6 of this section:

$$\%\text{reduction} = \frac{E_i - E_o}{E_i} x100\% \qquad \text{(Eq. 6)}$$

Where:

E_i = Mass emissions rate of TEA at control device inlet, kilograms per hour (kg/hr); and

E_o = Mass emissions rate of TEA at control device outlet, kg/hr.

(h) To determine compliance with the PM or total metal HAP emissions limits in §63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.

(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(2) Use the procedures in paragraphs (h)(2)(i) through (iii) of this section.

(i) Determine the volumetric flow rate of the individual regulated streams for which emissions limits apply.

(ii) Calculate the flow-weighted average emissions limit, considering only the regulated streams, using Equation 5 of this section, except C_w is the flow-weighted average emissions limit for PM or total metal HAP in the exhaust stream, gr/dscf; and C_i is the concentration of PM or total metal HAP in exhaust stream ‘‘i’’, gr/dscf.

(iii) Meet the calculated flow-weighted average emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(3) Use the procedures in paragraphs (h)(3)(i) through (iii) of this section.

(i) Determine the PM or total metal HAP concentration of each of the regulated streams prior to the combination with other exhaust streams or control device.

(ii) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before and after the control device and calculate the mass removal efficiency of the control device using Equation 6 of this section, except E_i is the mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr and E_o is the mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(iii) Meet the applicable emissions limit based on the calculated PM or total metal HAP concentration for the regulated emissions sources using Equation 7 of this section:

$$C_{released} = C_i x\left(1 - \frac{\%reduction}{100}\right) \qquad \text{(Eq. 7)}$$

Where:

$C_{released}$= Calculated concentration of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, gr/dscf; and

C_i= Concentration of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, gr/dscf.

(i) To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time, or other situations that are not expressly considered in paragraphs (b) through (h) of this section, a site-specific test plan should be submitted to the Administrator for approval according to the requirements in § 63.7(c)(2) and (3).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7733 What procedures must I use to establish operating limits?

(a) For each capture system subject to operating limits in §63.7690(b)(1)(ii), you must establish site-specific operating limits in your operation and maintenance plan according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).

(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.

(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.

(b) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run.

(2) Compute and record the average pressure drop and average scrubber water flow rate for each valid sampling run in which the applicable emissions limit is met.

(c) For each combustion device applied to emissions from a scrap preheater or TEA cold box mold or core making line subject to the operating limit in §63.7690(b)(4) for combustion zone

temperature, you must establish a site-specific operating limit according to the procedures specified in paragraphs (c)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(e), measure and record the combustion zone temperature during each sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average combustion zone temperature for each valid sampling run in which the applicable emissions limit is met.

(d) For each acid wet scrubber subject to the operating limit in §63.7690(b)(5), you must establish a site-specific operating limit for scrubbing liquid flow rate according to the procedures specified in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(f), measure and record the scrubbing liquid flow rate during each TEA sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average scrubbing liquid flow rate for each valid sampling run in which the applicable emissions limit is met.

(e) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in paragraphs (e)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.7690.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (d) of this section.

(f) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of this subpart.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?

(a) You have demonstrated initial compliance with the emissions limits in §63.7690(a) by meeting the applicable conditions in paragraphs (a)(1) through (11) of this section. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.005 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.006 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0005 gr/dscf; or

(iii) The average PM mass emissions rate, determined according to the performance test procedures in §63.7732(b), did not exceed 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) The average total metal HAP mass emissions rate, determined according to the performance test procedures in §63.7732(c), did not exceed 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.001 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.010 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, the opacity of fugitive emissions from foundry operations discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not

exceed 20 percent (6-minute average), except for one 6-minute average per hour that did not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, the average VOHAP concentration, determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing iron and steel foundry that does not meet the work practice standards in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not meet the work practice standard in §63.7700(f), the average VOHAP concentration determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new foundry,

(i) You have reduced the data from the CEMS to 3-hour averages according to the performance test procedures in §63.7732(f)(1) or (2); and

(ii) The 3-hour flow-weighted average VOHAP concentration, measured according to the performance test procedures in §63.7332(f)(1) or (2), did not exceed 20 ppmv.

(11) For each TEA cold box mold or core making line in a new or existing iron and steel foundry, the average TEA concentration, determined according to the performance test procedures in §63.7732(g), did not exceed 1 ppmv or was reduced by 99 percent.

(b) You have demonstrated initial compliance with the operating limits in §63.7690(b) if:

(1) For each capture system subject to the operating limit in §63.7690(b)(1)(ii),

(i) You have established appropriate site-specific operating limits in your operation and maintenance plan according to the requirements in §63.7710(b); and

(ii) You have a record of the operating parameter data measured during the performance test in accordance with §63.7733(a); and

(2) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b).

(3) For each combustion device subject to the operating limit in §63.7690(b)(3) for combustion zone temperature, you have a record of the combustion zone temperature measured during the performance test in accordance with §63.7732(e)(4).

(4) For each combustion device subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you have established appropriate site-specific operating limits and have a record of the combustion zone temperature measured during the performance test in accordance with §63.7733(c).

(5) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5) for scrubbing liquid flow rate and scrubber blowdown pH,

(i) You have established appropriate site-specific operating limits for the scrubbing liquid flow rate and have a record of the scrubbing liquid flow rate measured during the performance test in accordance with §63.7733(d); and

(ii) You have a record of the pH of the scrubbing liquid blowdown measured during the performance test in accordance with §63.7732(g)(3).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?

(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that: “At all times, your foundry will purchase and use only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids.”

(b) For each iron and steel foundry subject to the requirements in §63.7700(c) for a scrap inspection and selection plan, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted a written plan to the Administrator for approval according to the requirements in §63.7700(c); and

(2) You will operate at all times according to the plan requirements.

(c) For each furan warm box mold or core making line in a new or existing foundry subject to the work practice standard in §63.7700(d), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You will meet the no methanol requirement for the catalyst portion of each binder chemical formulation; and

(2) You have records documenting your certification of compliance, such as a material safety data sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet, onsite and available for inspection.

(d) For each scrap preheater at an existing iron and steel foundry subject to the work practice standard in §63.7700(e)(1) or (2), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have installed a gas-fired preheater where the flame directly contacts the scrap charged, you will operate and maintain each gas-fired scrap preheater such that the flame directly contacts the scrap charged, and you have records documenting your certification of compliance that are onsite and available for inspection; or

(2) You will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

(e) For each scrap preheater at a new iron and steel foundry subject to the work practice standard in §63.7700(f), you have demonstrated initial compliance if you have certified in your notification of compliance status that you will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005]

§ 63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in paragraphs (a)(1) and (2) of this section.

(1) You have certified in your notification of compliance status that:

(i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan.

(2) You have certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan.

(b) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(2) You will inspect, operate, and maintain each control device according to the procedures in the plan.

(c) For each bag leak detection system, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the bag leak detection system monitoring information to the Administrator within the written O&M plan for approval according to the requirements of §63.7710(b);

(2) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and

(3) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan.

(d) For each pouring area and pouring station in a new or existing foundry, you have demonstrated initial compliance if you have certified in your notification of compliance status report that:

(1) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and

(2) You will follow the procedures for igniting mold vent gases according to the requirements in the plan.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

Continuous Compliance Requirements

§ 63.7740 What are my monitoring requirements?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) and the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you use a flow measurement device to monitor the operating limit parameter, you must at all times monitor the hourly average rate (e.g., the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device).

(2) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in § 63.7741(b).

(c) For each baghouse, regardless of type, that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must conduct inspections at their specified frequencies according to the requirements specified in paragraphs (c)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply for pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(d) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c).

(e) For each combustion device subject to the operating limit in §63.7690(b)(3), you must at all times monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).

(f) For each combustion device subject to the operating limit in §63.7690(b)(4), you must at all times monitor the 3-hour average combustion zone temperature using CPMS according to the requirements in §63.7741(d).

(g) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5),

(1) You must at all times monitor the 3-hour average scrubbing liquid flow rate using CPMS according to the requirements of §63.7741(e)(1); and

(2) You must at all times monitor the 3-hour average pH of the scrubber blowdown using CPMS according to the requirements in §63.7741(e)(2) or measure and record the pH of the scrubber blowdown once per production cycle using a pH probe and meter according to the requirements in §63.7741(e)(3).

(h) For one or more automated conveyor and pallet cooling lines and automated shakeout lines at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must at all times monitor the 3-hour average VOHAP concentration using a CEMS according to the requirements of §63.7741(g).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7741 What are the installation, operation, and maintenance requirements for my monitors?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) through (3) of this section.

(1) If you use a flow measurement device to monitor an operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(1)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) If you use a pressure measurement device to monitor the operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close as possible to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly.

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) Record the results of each inspection, calibration, and validation check.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the operation and maintenance plan required by §63.7710(b).

(6) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in paragraphs (c)(1) and (2) of this section.

(1) For each CPMS for pressure drop you must:

(i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) For each CPMS for scrubber liquid flow rate, you must:

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(d) For each combustion device subject to the operating limit in §63.7690(b)(3) or (4), you must install and maintain a CPMS to measure and record the combustion zone temperature according to the requirements in paragraphs (d)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If you use a chart recorder, it must have a sensitivity in the minor division of at least 20 °F.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor.

(8) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(e) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5), you must:

(1) Install and maintain CPMS to measure and record the scrubbing liquid flow rate according to the requirements in paragraph (c)(2) of this section; and

(2) Install and maintain CPMS to measure and record the pH of the scrubber blowdown according to the requirements in paragraph (e)(2)(i) through (iv) of this section.

(i) Locate the pH sensor in a position that provides a representative measurement of the pH and that minimizes or eliminates internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.1 pH or a transducer with a minimum measurement sensitivity of 5 percent of the pH range.

(iii) Check gauge calibration quarterly and transducer calibration monthly using a manual pH gauge.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) As an alternative to the CPMS required in paragraph (e)(2) of this section, you may use a pH probe to extract a sample for analysis by a pH meter that meets the requirements in paragraphs (e)(3)(i) through (iii) of this section.

(i) The pH meter must have a range of at least 1 to 5 or more;

(ii) The pH meter must have an accuracy of ±0.1; and

(iii) The pH meter must have a resolution of at least 0.1 pH.

(f) You must operate each CPMS used to meet the requirements of this subpart according to the requirements specified in paragraphs (f)(1) through (3) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data.

(2) Each CPMS must have valid hourly data for 100 percent of every averaging period.

(3) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.

(g) For each automated conveyor and pallet cooling line and automated shakeout line at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must install, operate, and maintain a CEMS to measure and record the concentration of VOHAP emissions according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) You must install, operate, and maintain each CEMS according to Performance Specification 8 in 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each CEMS according to the requirements of §63.8 and Performance Specification 8 in 40 CFR part 60, appendix B.

(3) You must operate each CEMS according to the requirements specified in paragraph (g)(3)(i) through (iv) of this section.

(i) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(ii) You must reduce CEMS data as specified in §63.8(g)(2).

(iii) Each CEMS must determine and record the 3-hour average emissions using all the hourly averages collected for periods during which the CEMS is not out-of-control.

(iv) Record the results of each inspection, calibration, and validation check.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7742 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?

(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section. When alternative emissions limitations are provided for a given emissions source, you must comply with the alternative emissions limitation most recently selected as your compliance alternative.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.006 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0005 gr/dscf; or

(iii) Maintaining the average PM mass emissions rate at or below 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) Maintaining the average total metal HAP mass emissions rate at or below 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at new iron and steel foundry, (i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.001 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions from foundry operations discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing new iron and steel foundry that does not comply with the work practice standard in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not comply with the work practice standard in §63.7700(f), maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines or automated shakeout lines that use a sand mold system at a new iron and steel foundry,

(i) Maintaining the 3-hour flow-weighted average VOHAP concentration in the exhaust stream at or below 20 ppmv;

(ii) Inspecting and maintaining each CEMS according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements; and

(iii) Collecting and reducing monitoring data for according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements.

(11) For each TEA cold box mold or core making line at a new or existing iron and steel foundry, maintaining a 99 percent reduction in the VOHAP concentration in the exhaust stream or maintaining the average VOHAP concentration in the exhaust stream at or below 1 ppmv.

(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in §63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7).

(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7690(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.

(1) Operating the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and

(2) Monitoring the capture system according to the requirements in §63.7740(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements in this subpart.

(c) For each baghouse,

(1) Inspecting and maintaining each baghouse according to the requirements of §63.7740(c)(1) through (8) and recording all information needed to document conformance with these requirements; and

(2) If the baghouse is equipped with a bag leak detection system, maintaining records of the times the bag leak detection system sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) For each wet scrubber that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(e) For each combustion device that is subject to the operating limit in §63.7690(b)(3), you must demonstrate continuous compliance by:

(1) Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300 °F;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(f) For each combustion device that is subject to the operating limit in §63.7690(b)(4), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average combustion zone temperature at a level no lower that established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(g) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average scrubbing liquid flow rate at a level no lower than the level established during the initial or subsequent performance test;

(2) Maintaining the 3-hour average pH of the scrubber blowdown at a level no higher than 4.5 (if measured by a CPMS) or maintaining the pH level of the scrubber blowdown during each production shift no higher than 4.5;

(3) Inspecting and maintaining each CPMS according to the requirements of §63.7741(e) and recording all information needed to document conformance with these requirements; and

(4) Collecting and reducing monitoring data for scrubbing liquid flow rate and scrubber blowdown pH according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. If the pH level of the scrubber blowdown is measured by a probe and meter, you must demonstrate continuous compliance by maintaining records that document the date, time, and results of each sample taken for each production shift.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d).

(c) For a scrap preheater at an existing iron and steel foundry, you must operate and maintain each gas-fired preheater such that the flame directly contacts the scrap charged to demonstrate continuous compliance with the requirement §63.7700(e)(1). If you choose to meet the work practice standard in §63.7700(e)(2), you must keep records to document that the scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b).

(d) For a scrap preheater at a new iron and steel foundry, you must keep records to document that each scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) to demonstrate continuous compliance with the requirement in §63.7700(f).

§ 63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by:

(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements;

(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;

(4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and

(5) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)

(b) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.

§ 63.7746 What other requirements must I meet to demonstrate continuous compliance?

(a) Deviations. You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies to you. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of §63.7751.

(b) Startups, shutdowns, and malfunctions. (1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

§ 63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?

(a) You may request an alternative monitoring method to demonstrate compliance with the VOHAP emissions limits in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines at a new iron and steel foundry according to the procedures in this section.

(b) You can request approval to use an alternative monitoring method in the notification of construction or reconstruction for new sources, or at any time.

(c) You must submit a monitoring plan that includes a description of the control technique or pollution prevention technique, a description of the continuous monitoring system or method

including appropriate operating parameters that will be monitored, test results demonstrating compliance with the emissions limit, operating limit(s) (if applicable) determined according to the test results, and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the monitors.

(d) The monitoring plan is subject to approval by the Administrator. Use of the alternative monitoring method must not begin until approval is granted by the Administrator.

Notifications, Reports, and Records

§ 63.7750 What notifications must I submit and when?

(a) You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you start up your iron and steel foundry before April 22, 2004, you must submit your initial notification no later than August 20, 2004.

(c) If you start up your new iron and steel foundry on or after April 22, 2004, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii). For opacity performance tests, the notification of compliance status may be submitted with the semiannual compliance report in §63.7751(a) and (b) or the semiannual part 70 monitoring report in § 63.7551(d).

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in §63.10(d)(2).

§ 63.7751 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by §63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each emissions source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where you are using a continuous monitoring

system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan and the source exceeds any applicable emissions limitation in § 63.7690, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an iron and steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7752 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of §63.10(b)(2)(xiv).

(2) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation).

(b) You must keep the following records for each CEMS.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to relative accuracy tests for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7753 In what form and for how long must I keep my records?

(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite.

Other Requirements and Information

§ 63.7760 What parts of the General Provisions apply to me?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7761 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to non-opacity emissions limitations in §63.7690 and work practice standards in §63.7700 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

Definitions

§ 63.7765 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in §63.2, and in this section.

Automated conveyor and pallet cooling line means any dedicated conveyor line or area used for cooling molds received from pouring stations.

Automated shakeout line means any mechanical process unit designed for and dedicated to separating a casting from a mold. These mechanical processes include, but are not limited to, shaker decks, rotary separators, and high-frequency vibration units. Automated shakeout lines do not include manual processes for separating a casting from a mold, such as personnel using a hammer, chisel, pick ax, sledge hammer, or jackhammer.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that

operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Binder chemical means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Cold box mold or core making line means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas.

Combustion device means an afterburner, thermal incinerator, or scrap preheater.

Conveyance means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance.

Cooling means the process of molten metal solidification within the mold and subsequent temperature reduction prior to shakeout.

Cupola means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emissions limitation (including operating limits), work practice standard, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit; or

(3) Fails to meet any emissions limitation (including operating limits) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Electric arc furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths.

Electric induction furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted though resistance heating by an electric current that is induced in the

metal by passing an alternating current through a coil surrounding the metal charge or surrounding a pool of molten metal at the bottom of the vessel.

Emissions limitation means any emissions limit or operating limit.

Exhaust stream means gases emitted from a process through a conveyance as defined in this subpart.

Free organic liquids means material that fails the paint filter test by EPA Method 9095A (incorporated by reference—see §63.14). That is, if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains free liquids.

Fresh acid solution means a sulfuric acid solution used for the control of triethylamine emissions that has a pH of 2.0 or less.

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart.

Furan warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated as a furan warm box system by the foundry industry.

Hazardous air pollutant means any substance on the list originally established in 112(b)(1) of the CAA and subsequently amended as published in the Code of Federal Regulations.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities and operations that only produce non-commercial castings are not included in this definition.

Metal melting furnace means a cupola, electric arc furnace, or electric induction furnace that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making green sand molds or cores.

Mold vent means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring.

Off blast means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off blast conditions include cupola startup when air is introduced to the cupola to preheat the sand bed and other cupola startup procedures as defined in the startup, shutdown, and malfunction plan. Off blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.

On blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production.

Pouring area means an area, generally associated with floor and pit molding operations, in which molten metal is brought to each individual mold. Pouring areas include all pouring operations that do not meet the definition of a pouring station.

Pouring station means the fixed location to which molds are brought in a continuous or semicontinuous manner to receive molten metal, after which the molds are moved to a cooling area.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate volatile impurities or other tramp materials by direct flame heating or similar means of heating. Scrap dryers, which solely remove moisture from metal scrap, are not considered to be scrap preheaters for purposes of this subpart.

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH before being returned to the scrubber.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7222, February 7, 2008]

Table 1 to Subpart EEEEE of Part 63—Applicability of General Provisions to Subpart EEEEE

[As stated in §63.7760, you must meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to Subpart EEEEE?	Explanation
63.1	Applicability	Yes	
63.2	Definitions	Yes	
63.3	Units and abbreviations	Yes	
63.4	Prohibited activities	Yes	
63.5	Construction/reconstruction	Yes	

63.6(a)–(g)	Compliance with standards and maintenance requirements	Yes	
63.6(h)	Opacity and visible emissions standards	Yes	
63.6(i)–(j)	Compliance extension and Presidential compliance exemption	Yes	
63.7(a)(1)–(a)(2)	Applicability and performance test dates	No	Subpart EEEEE specifies applicability and performance test dates.
63.7(a)(3), (b)–(h)	Performance testing requirements	Yes	
63.8(a)(1)–(a)(3), (b), (c)(1)–(c)(3), (c)(6)–(c)(8), (d), (e), (f)(1)–(f)(6), (g)(1)–(g)(4)	Monitoring requirements	Yes	Subpart EEEEE specifies requirements for alternative monitoring systems.
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No	Subpart EEEEE does not require flares.
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No	Subpart EEEEE specifies requirements for operation of CMS and CEMS.
63.8(c)(5)	Continuous opacity monitoring system (COMS) Minimum Procedures	No	Subpart EEEEE does not require COMS.
63.8(g)(5)	Data reduction	No	Subpart EEEEE specifies data reduction requirements.
63.9	Notification requirements	Yes	Except: for opacity performance tests, Subpart EEEEE allows the notification of compliance status to be submitted with the semiannual compliance report or the semiannual part 70 monitoring report.
63.10(a)–(b), (c)(1)–(6), (c)(9)–(15), (d)(1)–(2), (e)(1)–(2), (f)	Recordkeeping and reporting requirements	Yes	Additional records for CMS in §63.10(c)(1)–(6), (9)–(15) apply only to CEMS.
63.10(c)(7)–(8)	Records of excess emissions and parameter monitoring exceedances for CMS	No	Subpart EEEEE specifies records requirements.
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes	
63.10(e)(3)	Excess emissions reports	No	Subpart EEEEE specifies reporting requirements.

63.10(e)(4)	Reporting COMS data	No	Subpart EEEEE data does not require COMS.
63.11	Control device requirements	No	Subpart EEEEE does not require flares.
63.12	State authority and delegations	Yes	
63.13–63.15	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality	Yes	

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7223, February 7, 2008]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Grede Foundries, Inc.
Source Location:	2700 East Plum Street, New Castle, Indiana 47362
County:	Henry County
SIC Code:	3321
Permit Renewal No.:	T 065-23866-00007
Permit Reviewer:	Timothy R. Pettifor

On January 25, 2008, the Office of Air Quality (OAQ) had a notice published in The Courier Times, New Castle, Indiana stating that Grede Foundries, Inc. had applied for a Part 70 Operating Permit Renewal to operate a gray iron and ductile iron foundry. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 26, 2008, Tim Palmer of Grede Foundries submitted comments on the proposed Part 70 Operating Permit Renewal. Upon further review, IDEM, OAQ has decided to make the following changes to the permit. The comments are as follows: the permit language if changed, has deleted language as ~~strikethroughs~~ and the new language as **bolded**.

Comment 1: Condition E.1.2

On February 7,2008, the EPA published updates to 40 CFR.63, Subpart EEEEE in the Federal Register (Volume 73, Number 26). As a result, 7332 (a) (6), (h), and (i); and 7740 (c) should be added to Condition E.1.2. Please also reference sections 7680, 7681, 7745, and 7746-7765 to ensure all of the relevant sections of the MACT are included.

Response 1:

Condition E.1.2 has been revised as a result of the updates to 40 CFR.63, Subpart EEEEE. No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

E.1.2 Iron and Steel Foundries Requirements [40 CFR Part 63, Subpart EEEEE]

Pursuant to CFR Part 63, Subpart EEEEE, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart EEEEE (included as Attachment A), for the electric induction melt furnaces, scrap preheater, and pouring operation:

40 CFR 63.7680
40 CFR 63.7681
40 CFR 63.7682 (a)-(c)
40 CFR 63.7683 (a) (b) and (f)
40 CFR 63.7690 (a)(1), (5), (7)
40 CFR 63.7700 (a)-(c), (e)
40 CFR 63.7710 (a)-(b) (1),(3)-(6)
40 CFR 63.7720 (a)-(c)
40 CFR 63.7730 (a)-(b)
40 CFR 63.7731 (a)-(b)
40 CFR 63.7732 (a); (b)(1), (2), (4)**,** ~~and~~ (5), **and 6**; (c) (1),(2),(4),(5);(d);**(h);(i)**
40 CFR 63.7733 (f)
40 CFR 63.7734 (a)(1),(5), (7)
40 CFR 63.7735 (a),(b),(d)
40 CFR 63.7736 (c) and (d)
40 CFR 63.7740 (b) and (c)
40 CFR 63.7741 (b) and (f)
40 CFR 63.7742 (a)-(c)
40 CFR 63.7743(a)(1),(5), (7), (12)
40 CFR 63.7744 (a) and (c)
40 CFR 63.7745
40 CFR 63.7746
40 CFR 63.7747
40 CFR 63.7750
40 CFR 63.7751
40 CFR 63.7752
40 CFR 63.7753
40 CFR 63.7760
40 CFR 63.7761
40 CFR 63.7765

IDEM, OAQ has also made the following change to the Part 70 Permit.

1. The signature block on the cover page has been changed to reflect recent changes in OAQ staff.

Operation Permit No.: T 065-23866-00007	
Issued by: Matthew Stuckey, ~~Deputy Branch~~ Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Grede Foundries, Inc.
Source Location:	2700 East Plum Street, New Castle, Indiana 47362
County:	Henry
SIC Code:	3321
Permit Renewal No.:	T 065-23866-00007
Permit Reviewer:	Timothy R. Pettifor

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Grede Foundries, Inc., relating to the operation of a gray iron and ductile iron foundry which is a secondary metal production plant.

History

On November 6, 2006, Grede Foundries, Inc., submitted an application to the OAQ requesting to renew its operating permit. Grede Foundries, Inc., was issued a Part 70 Operating Permit on August 7, 2002.

Permitted Emission Units and Pollution Control Equipment

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

(a) four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4), with Furnace #1 and #2, both constructed in 1968, each having a maximum melt rate of 5.5 tons of ductile iron per hour, and Furnace #3 and #4, both constructed in 1976, each having a maximum melt rate of 5.0 tons of ductile iron per hour, all controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(b) one (1) charge handling system, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, exhausting through general ventilation;

(c) one (1) natural gas-fired scrap preheater, constructed in 1968, with a maximum heat input of 9.84 million (MM) British thermal units (Btu) per hour, and a maximum throughput of 21.0 tons of ductile iron per hour, controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(d) one (1) inoculation process, constructed in 1968, with a maximum throughput of 21.0 tons of ductile iron per hour, with particulate matter emissions controlled by a collection hood ducted to one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(e) one (1) molding operation (ID No. Mold Line #1), constructed in 1993, consisting of the following:

(1) one (1) sand muller (ID No. Line #1 Muller) and associated feed and discharge belts, with a maximum mold sand throughput of 102.5 tons per hour, controlled

by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(2) one (1) metal pouring operation (ID No. Line #1 Pouring), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(3) one (1) metal cooling operation (ID No. Line #1 Cooling), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(4) one (1) mold shakeout operation (ID No. Line #1 Shakeout) and associated shakeout conveyor, with a maximum ductile iron casting throughput of 10.25 tons per hour, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(5) one (1) mold punch up operation, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

(6) one (1) casting transfer operation, consisting of the following:

(A) one (1) accumulating shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(B) one (1) degate shaker, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand, exhausting through one (1) stack (ID No. S-1);

(C) one (1) loader shaker; and

(D) one (1) belt conveyor, with a maximum throughput of 10.25 tons per hour of ductile iron castings and 102.5 tons per hour of sand.

(7) one (1) casting finishing operation, consisting of the following:

(A) two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast), each with a maximum throughput of 5.125 tons per hour of ductile iron castings, both controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10);

(B) four (4) grinders, each with a maximum throughput of 0.89 tons per hour of ductile iron castings, all controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10).

Note: all the above operations which exhaust through stack ID No. S-1, are controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3).

(f) one (1) molding operation (ID No. Mold Line #2), constructed in 1968, consisting of the following:

(1) one (1) sand handling operation (ID No. Line #2 Sand) with a maximum mold sand throughput of 107.5 tons per hour, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5. The sand handling operations including the sand muller (ID Line #2 Muller), the return sand system, the casting and sand shaker conveyors, the sand transfer belt conveyors, and the sand shaker conveyors;

(2) one (1) metal pouring/cooling operation (ID No. Line #2 Pour/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, exhausting into the building;

(3) one (1) mold punchup/cooling operation (ID No. Line #2 Punchup/Cool), with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #5, exhausting through stack S-5;

(4) one (1) shakeout operation (ID No. Line #2 Shakeout) with a maximum throughput of 10.75 tons per hour of ductile iron, controlled by one (1) dust collector identified as collector #2, exhausting through stack S-2;

(5) Two (2) shotblast machines, (ID Nos. #3 Shotblast and #4 Shotblast), each with a maximum throughput of 5.375 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(6) Three (3) grinders, with a total nominal throughput of 2.7 tons per hour of ductile iron castings, controlled by one (1) dust collector #6, exhausting through stack S-6;

(7) Four (4) grinders, with a total nominal throughput of 3.6 tons per hour of ductile iron castings, controlled by one (1) dust collector #10, exhausting through stack S-10;

(g) one (1) core sand mixer (ID North Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 2) for particulate matter control which exhausts indoors, and two (2) core machines (ID 103 Core Machine and 106 Core Machine), constructed in 1972 and 1974, respectively, each with a nominal throughput of 5.1 tons of sand per hour with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(h) one (1) core sand mixer (ID South Core Sand Mixer), constructed in 1993, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 3) for particulate matter control which exhausts indoors, and two (2) core machines (ID N-321 Core Machine and S-321 Core Machine), both constructed in 1976, each with a nominal throughput of 4.08 tons of sand per hour, both with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

(i) one (1) core sand mixer (ID New Core Sand Mixer), constructed in 1995, with a nominal throughput of 9.0 tons of sand per hour, with one (1) dust collector (ID Bin Vent 4) for particulate matter control which exhausts indoors, and six (6) core machines (ID Disa Core Machine (constructed in 1993), CB-1 Core Machine (constructed in 1992), CB-2 Core Machine (constructed in 1992), CB-3 Core Machine (constructed in 1995), CB-4 Core Machine (constructed in 1995), and CB-5 Core Machine (constructed in 2000)), with the Disa Core Machine having a nominal throughput of 1.77 tons of sand per hour and each of the remaining five (5) core machines with a nominal throughput of 1.5 tons of sand per hour, all with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

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

(a) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six (6) million Btu per hour.

(b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(c) VOC and HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

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

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

(f) Gasoline emergency generators not exceeding 110 horsepower.

(g) Diesel emergency generators not exceeding 1600 horsepower.

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

(i) 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 dry standard cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including pneumatic conveying as follows:

(1) One (1) pneumatically conveyed core sand reclaim system with one (1) dust collector for particulate matter control, exhausting to the general ventilation.

Existing Approvals

Since the issuance of the Part 70 Operating Permit T 065-6354-00007 on August 7, 2002, the source has constructed or has been operating under the following approvals as well:

(a) Significant Permit Modification No. T 065-16605-0007 issued on January 2, 2003; and

(b) Significant Permit Modification No. T 065-16577-0007 issued on March 11, 2005.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-1	Mold Line #1	120	7	123,500	120
S-2	Line #2 Shakeout	33	6	70,000	120
S-5	Mold Line #2 and Line #2 Punchup/Cool)	52.2	3.3 x 4.3	51,000	92
S-6	Nos. #3 Shotblast and #4 Shotblast and Three (3) grinders	52.2	3.2 x 4.3	51,000	90
S-7	electric induction melting furnaces	36	3.7 x 3.7	60,000	125 avg.
S-10	Nos. #1 Shot Blast and #2 Shot Blast and Four (4) grinders	38	4.17	60,000	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1-26).

County Attainment Status

The source is located in Henry County.

Pollutant	Status
PM_{10}	attainment
$PM_{2.5}$	attainment
SO_2	attainment
NOx	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

(a) Henry County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

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

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

(c) Henry County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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

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

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	6621.18
PM-10	1726.93
SO_2	1.84
VOC	656.61
CO	556.1
NO_x	9.52
Lead	11.3

HAPs	tons/year
Chromium	1.1
Nickel	1.9
Arsenic	3.65E-01
Cadmium	4.74E-05
Manganese	85.2
Antimony	5.25
Lead	11.3
Dichlorobenzene	5.17E-05
Hexane	7.76E-02
Acrolein	.09
Benzene	14.71
Formaldehyde	.06
HCN	2.9
Xylene	1.57
Napthalene	0.88
Phenol	10.74
Toluene	2.29
Aromatic Amines	0.97
Aldehyde	0.6
Total	140

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10, VOC, and CO is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(d) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM-10	86
SO_2	1
VOC	81
CO	3
NO_x	4
Lead	0.02

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)							
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single Worst HAP**	**Total HAP's**
Electric Induction Furnaces	82.79	79.1	0	0	0	0	2.1 (Mn)	3.1
Charge Handling	55.19	33.11	0	0	0	0	_	_
Scrap Preheater	0.1	0.3	0	4.3	0.2	3.6	7.8E-02(Hexane)	.08
Inoculation	138.1	138.1	0	0	0.46	0	1.1E01 (Mn)	1.4E01
Sand Handling Line 1	80.2	37.23	_	_	_	_	0	0
Pouring/Casting Line 1			0.77	0.38	5.36	229.69	5.0 (Mn)	6.1
Castings Cooling Line 1			0	0	0		1.65 (Mn)	2.0
Shakeout Line 1			0	0	45.94		3.8 (Mn)	4.6
Shot Blast 1 & 2	2.89	6.57	0	0	0	0	19.9 (Mn)	2.4 E01
Grinders Line 1			0	0	0	0	4.8E-03 (Mn)	5.9 E-03
Sand Handling Line 2	227.8	227.8	0	0	0	0	0	0
Pouring/Casting Line 2	197.76	97	0.94	0.47	6.59	282.51	6.1(Mn)	7.5
Cooling Mold Line 2	65.92	65.92	0	0	0		2.02 (Mn)	2.5
Shakeout Line 2	150.67	150.67	0	0	0		4.7 (Mn)	5.7
Shot Blast 3 & 4	110.8	110.8	0	0	0	0	2.4 E01 (Mn)	29.54
Grinders Mold Line #2	.0028	.0012	0	0	0	0	8.6E-03 (Mn)	0.01
Organic HAP's Pouring, Cooling, Shakeout	_	_	_	_	_	_	14.71 (Benzene)	33.98
North Core Sand Mixer & Core Machines	6.13	2.37	0	0	196.58	0	0.28 (Napth)	0.28
South Core Sand Mixer & Core Machines	6.13	2.37	0	0	157.26	0	0.26 (Napth)	0.26
New Core Sand Mixer & Core Machines	6.13	2.37	0	0	28.61	0	0.05 (Napth)	0.05
Propane/LPG/E01 Butane Combustion sources	0.1	0.1	0	4.3	0.2	0.6	0	_

	Potential to Emit (tons/year)							
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single Worst HAP**	**Total HAP's**
Core Sand Reclaim system.	4.56	4.56	0	0	0	0	0	_
Total	1270.9	932.1	1.71	9.45	497.7	516.4	-	134
Major Source Threshold	100	100	100	100	100	100	>10	>25

(a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.

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

Federal Rule Applicability

The following federal rules are applicable to the source:

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

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM.

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Electric Induction Furnace #1-PM10	Dust Collector No. 7	Y	20.79	0.21	100	N	N
Electric Induction Furnace #2- PM10	Dust Collector No. 7	Y	20.79	0.21	100	N	N
Electric Induction Furnace #3-PM10	Dust Collector No. 7	Y	18.83	0.19	100	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Electric Induction Furnace #4 - PM10	Dust Collector No. 7	N	18.83	0.19	100	N	N
Electric Induction Furnace #1 Total HAP's	Dust Collector No. 7	N	0.83	8.3E-03	10/25	N	N
Electric Induction Furnace #2 Total HAP's	Dust Collector No. 7	N	0.83	8.3E-03	10/25	N	N
Electric Induction Furnace #3 Total HAP's	Dust Collector No. 7	N	0.75	7.5E-03	10/25	N	N
Eletric Induction Furnace #4 - Total HAP's	Dust Collector No. 7	N	0.75	7.5E-03	10/25	N	N
Charge Handling-PM10	None	N	33.1	33.1	100	N	N
Innoculation -PM10	Dust Collector No. 7	Y	367.92	76.26	100	Y	N
Innoculation -PM	Dust Collector No. 7	Y	367.92	76.26	100	Y	N
Innoculation - Total HAP's	Dust Collector No. 7	N	14	2.8	10/25	N	N
Scrap preheater-PM10	Dust Collector No. 7	Y	0.3	.003	100	N	N
Scrap preheater-Total HAP's	None	Y	0.08	0.08	100	N	N
Scrap preheater-VOC	None	N	0.2	0.2	100	N	N
Mold Line #1 Sand Handling - PM10	Dust Collectors Nos. 1 and 3	Y	242.0	4.8	100	Y	N
Mold Line #1 Sand Handling - PM	Dust Collectors Nos. 1 and 3	Y	1616.2	32.3	100	Y	N
Mold Line #1 Pouring- PM10	Dust Collectors Nos. 1 and 3	Y	92.48	1.58	100	N	N
Mold line# 1 Pouring- Total Metal HAP's	Dust Collectors Nos. 1 and 3	Y	7.1	0.14	10/25	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Mold line #1 Pouring - VOC	None	Y	6.3	5.4	100	N	N
Mold line #1 Cooling - PM10	Dust Collectors Nos. 1 and 3	Y	62.85	0.54	100	N	N
Mold line #1 Cooling - Total Metal HAP's	Dust Collectors Nos. 1 and 3	Y	2.4	0.024	100	N	N
Mold line #1 Shakeout - PM10	Dust Collectors Nos. 1 and 3	Y	100.56	1.77	100	Y	N
Mold line #1 Shakeout - PM	Dust Collectors Nos. 1 and 3	Y	143.66	2.45	100	Y	N
Mold line #1 Shakeout - Total Metal HAP's	Dust Collectors Nos. 1 and 3	Y	5.4	0.11	10/25	N	N
Mold line #1 Shakeout -VOC	None	Y	53.87	45.94	100	N	N
Mold Line #1 Pouring, Cooling, &Shakeout - CO	None	N	269.37	269.37	100	N	N
Shotblasters #1 - #2 - PM10	Dust Collector No.10	Y	76.3	0.65	100	N	N
Shotblasters #1 - #2 - Total HAP's	Dust Collector No.10	Y	28.2	0.28	100	N	N
Mold Line #1 Grinders-PM10	Dust Collector No.10	Y	0.07	0.00	100	N	N
Mold Line #1 Grinders- Total HAP's	Dust Collector #10	N	5.9E-03	0.002	100	N	N
Mold line #2 Pouring VOC	None	N	6.59	6.59	100	N	N
Mold line# 2 Pouring - PM10	Dust Collector No. 5	Y	97.0	97.0	100	N	N
Mold line #2 Pouring Total Metal HAP's	None	Y	7.5	7.5	100	N	N
Mold Line #2 Cooling PM10	Dust Collector No. 5	N	65.92	1.32	100	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Mold Line #2 Cooling- Total Metal HAP's	Dust Collector No. 5	Y	2.5	0.05	100	N	N
Mold line #2 Shakeout- PM10	Dust Collector No.2	Y	105.5	2.11	100	Y	N
Mold line #2 Shakeout- PM	Dust Collector No.2	Y	150.67	3.01	100	Y	N
Mold line# 2 Shakeout - VOC	None	Y	56.5	56.5	100	N	N
Mold line #2 Shakeout - Total Metal HAP's	Dust Collector No.2	Y	5.70	0.11	100	N	N
Mold line #2 Sand Handling - PM10	Dust Collector No.5	Y	254.30	5.1	100	Y	N
Mold line #2 Sand Handling - PM	Dust Collector No.5	Y	1695.1	33.9	100	Y	N
Shotblasters #3 - #4 - PM10	Dust Collector No. 6	Y	80.45	1.6	100	N	N
Shotblasters #3 - #4 - Total HAP's	Dust Collector No. 6	Y	29.54	0.6	10/25	N	N
Mold Line #2 Grinders - PM10	Dust Collectors Nos. 6 and 10	Y	0.01	0.0	100	N	N
Mold line #2 Grinders -Total HAP's	Dust Collectors Nos. 6 and 10	N	0.7	0.01	10/25	N	N
Pouring, Cooling, &Shakeout - Organic HAP's	None	N	33.98	29	10/25	N	N
North Core Sand Mixer -PM10	Bin Vent 2	Y	21.3	0.43	100	N	N
South Core Sand Mixer -PM10	Bin Vent 3	Y	21.3	0.43	100	N	N
New Core Sand Mixer -PM10	Bin Vent 4	Y	21.3	0.43	100	N	N
Core Machine 103 - VOC	Wet Scrubber	Y	98.29	28.24	100	N	N
Core Machine 106 - VOC	Wet Scrubber	Y	98.29	28.24	100	N	N
Core Machines 103 &106 - Total HAP's	None	N	0.28	0.28	10/25	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Core Machine N-321 - VOC	Wet Scrubber	Y	78.63	22.59	100	N	N
Core Machine S-321 - VOC	Wet Scrubber	Y	78.63	22.59	100	N	N
Core Machines N-321 & S-321- Total HAP's	None	Y	0.26	22.59	100	N	N
Core Machine DISA -VOC	Wet Scrubber	Y	34.11	7.15	100	N	N
Core Machines CB-1 and CB-2 - VOC	Wet Scrubber	Y	57.82	7.15	100	N	N
Core Machines CB-3 and CB-4 - VOC	Wet Scrubber	Y	57.82	7.15	100	N	N
Core Machine CB-5 -VOC	Wet Scrubber	Y	28.91	7.15	100	N	N
Core Machines CB-1-5, & Disa - Total HAP's	None	Y	0.28	0.05	10/25	N	N
Core Sand Reclaim -PM10	Dust Collector	Y	4.56	0.046	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the innoculation process, Mold line #1 Shakeout, Mold line #1 Sand Handling, Mold line #2 Shakeout, and Mold line #2 Sand Handling for PM-10, upon issuance of the Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal.

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

(b) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE), which is incorporated by reference as 326 IAC 20-92. The four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3 and Furnace #4), One, (1) natural gas fired scrap preheater, the pouring station associated with Mold Line #1, the pouring stations associated with Mold Line #2, the shakeout operations associated with Mold Line #1, the shakeout operations associated with Mold Line #2, and the core machines are subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, (40 CFR 63.7681, Subpart EEEEE) because the source is a major source of HAPs and melting furnaces, scrap preheater and pouring areas are used to manufacture iron and steel.

Pursuant to 40 CFR 63.7682and 40 CFR 63.7690, the affected source that is subject to the requirements of 40 CFR 63, Subpart EEEEE consists of all facilities located at the source engaged in the following operations: metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines and mold and core making lines. Also fugitive emissions from foundry operations. The specific facilities include the following:

(1) four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4), with Furnace #1 and #2, both constructed in 1968, each having a maximum melt rate of 5.5 tons of ductile iron per hour, and Furnace #3 and #4, both constructed in 1976, each having a maximum melt rate of 5.0 tons of ductile iron per hour, all controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(2) one (1) natural gas-fired scrap preheater, constructed in 1968, with a maximum heat input of 9.84 million (MM) British thermal units (Btu) per hour, and a maximum throughput of 21.0 tons of ductile iron per hour, controlled by one (1) dust collector (ID No. Collector #7), exhausting through one (1) stack (ID No. S-7);

(3) one (1) metal pouring operation (ID No. Line #1 Pouring), with a maximum throughput of 10.25 tons per hour of ductile iron, controlled by two (2) dust collectors (ID Nos. Collector #1 and Collector #3), exhausting through one (1) stack (ID No. S-1);

Pursuant to 40 CFR 63.7683, the Permittee shall comply with the requirements of 40 CFR 63, Subpart EEEEE by April 23, 2007.

Pursuant to 40 CFR 63. the Permittee has chosen to comply with the requirements of 40 CFR 63, Subpart EEEEE by:

(1) Meeting the individual organic HAP emission limits for each operation,

(2) Prepare and operate according to a written certification for the purchase of clean scrap

The source wants the flexibility to use all of the averaging and compliant materials options within the MACT. The MACT allows the source to switch between compliance options.

Nonapplicable portions of the NESHAP will not be included in the permit. The existing affected source associated with the production of iron and steel is subject to the following portions of 40 CFR 63, Subpart EEEEE:

(1) 40 CFR 63.7682 (a)-(c)
(2) 40 CFR 63.7683 (a) (b) and (f)
(3) 40 CFR 63.7690 (a)(1), (5), (7)
(4) 40 CFR 63.7700 (a)-(c), (e)
(5) 40 CFR 63.7710 (a)-(b) (1),(3)-(6)
(6) 40 CFR 63.7720 (a)-(c)
(7) 40 CFR 63.7730 (a)-(b)
(8) 40 CFR 63.7731 (a)-(b)
(9) 40 CFR 63.7732 (a); (b)(1), (2), (4) and (5); (c) (1),(2),(4),(5);(d)
(10) 40 CFR 63.7733 (f)
(11) 40 CFR 63.7734 (a)(1),(5), (7)
(12) 40 CFR 63.7735 (a),(b),(d)
(13) 40 CFR 63.7736 (c) and (d)
(14) 40 CFR 63.7740 (b)
(15) 40 CFR 63.7741 (b) and (f)
(16) 40 CFR 63.7742 (a)-(c)
(17) 40 CFR 63.7743(a)(1),(5), (7), (12)
(18) 40 CFR 63.7744 (a) and (c)

(19) 40 CFR 63.7745 (a) and (b)
(20) 40 CFR 63.7746 (a) and (b)
(21) 40 CFR 63.7747 (a)-(d)
(22) 40 CFR 63.7750 (a),(b),(d), and (e)
(21) 40 CFR 63.7751 (a)-(d)
(22) 40 CFR 63.7752 (a)-(c)
(23) 40 CFR 63.7753 (a)-(c)
(24) 40 CFR 63.7760
(25) 40 CFR 63.7765

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart EEEEE.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)
This existing source is a major stationary source for 326 IAC 2-2 (PSD) because it is one of the 28 listed source categories and at least one attainment criteria pollutant, PM_{10} has controlled emissions greater than 100 tons per year. This source was a major source pursuant to 326 IAC 2-2 (PSD), prior to August 7, 1977.

1992 Modification
The core machines identified by CB-1 and CB-2 were constructed in 1992. The source has agreed to limit the VOC emissions from core machines CB-1 and CB-2 to less than 25 tons per year in order to render 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 not applicable to the 1992 modification. Pursuant to SPM 065-16577-00007, issued on March 11, 2005, the following limits were established:

(1) The total resin usage for core machines CB-1 and CB-2 shall be less than 271,636 pounds of resin per twelve (12) consecutive month period. Total DMEA usage for core machines CB-1 and CB-2 shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from core machines CB-1 and CB-2 shall not exceed 0.05 pound per pound of resin.

Compliance with these limits shall limit VOC emissions to less than 40 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 1992 modification.

1993 Modification
(a) Mold Line #1 (including one (1) casting transfer operation, two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast) and four (4) grinders), two (2) of the sand mixers (ID South Core Sand Mixer and North Core Sand Mixer), and the Disa core machine were constructed in 1993. The uncontrolled net emissions of PM and PM_{10} are greater than 25 and 15 tons per year, respectively. Pursuant to CP-065-2749-00007, issued on March 24, 1993, and modified by SPM 065-16577-00007, issued on March 11, 2005, the following limits were established:

(1) PM and PM10 emissions from the Mold Line #1 sand muller, pouring, cooling, shakeout, punch up, and casting transfer operation that exhaust through stack S-1 shall be less than 18.27 and 8.5 pounds per hour, respectively;

(2) PM and PM10 emissions from Shot Blast #1, Shot Blast #2 and the four grinders that exhaust through stack S-10 shall be less than 0.66 and 1.5 pound per hour, respectively;

(3) PM and PM10 emissions from the North Core Sand Mixer shall be less than 1.40 and 0.54 pounds per hour, respectively;

(4) PM and PM10 emissions from the South Core Sand Mixer shall be less than 1.40 and 0.54 pounds per hour, respectively.

(b) The total VOC emissions from the Mold Line #1 Pouring, Cooling, and Shakeout operations shall not exceed 51.3 tons per year. The throughput of metal to Mold Line #1 shall be less than 76,572 tons per twelve (12) consecutive month period. The VOC emission rates for the Mold Line #1 shall not exceed 1.34 pounds of VOC per ton of metal charged. This limit will remain so that VOC emissions (including the contemporaneous decrease in emissions from the replacement of the older mold line) do not exceed the major modification threshold of 40 tons per year.

(c) VOC emissions from the core machine identified as Disa, shall be limited to less than 25 tons per year as follows:

(1) The total resin usage for the Disa core machine shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. DMEA usage for the Disa core machine shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from the Disa core machine shall not exceed 0.05 pound per pound of resin.

Compliance with the above limits will render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the 1993 modification.

(d) Potential CO emissions from Molding Line #1 cooling, pouring and shakeout operations are greater than 100 tons per year. However, Mold Line #1 replaced an older molding line and the net CO emissions are less than the major modification threshold of 100 tons per year.

1995 Modification
The core machines identified by CB-3 and CB-4, and the New Core Sand Mixer were constructed in 1995. Pursuant to CP-065-3495-00007, issued on June 22, 1994 and modified by SPM 065-16577-00007, issued on March 11, 2005, the following emission limits were established:

(a) VOC emissions from core machines CB-3 and CB-4, both constructed in 1995, shall be limited to less than 25 tons per year as follows:

(1) The total resin usage for core machines CB-3 and CB-4 shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. Total DMEA usage for core machines CB-3 and CB-4 shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from core machines CB-3 and CB-4 shall not exceed 0.05 pound per pound of resin.

Compliance with these limits will also render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the 1995 modification.

(b) PM and PM10 emissions from the one (1) sand mixer (ID New Core Sand Mixer) shall be less than 5.68 and 3.40 pounds per hour, respectively. These limits will insure that PM and PM10 emissions do not exceed the PSD major modification thresholds. The bin vent controlling emissions from the sand mixer shall be in operation at all times that the sand mixer is operating to comply with this limit.

2000 Modification

(i) Pursuant to MSM 065-12236-00007, issued on July 24, 2000, and modified by SPM 065-16577-00007, issued on March 11, 2005, VOC emissions from core machine CB-5, constructed in 2000, shall be limited to less than 25 tons per year as follows:

(1) The total resin usage for core machine CB-5 shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. DMEA usage for core machine CB-5 shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from core machine CB-5 shall not exceed 0.05 pound per pound of resin.

The VOC emissions are limited to less than 25 tons per year to render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the 2000 modification.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted annually by July .Therefore, the next emission statement for this source must be submitted by July 1, 2008. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

State Rule Applicability – Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Since all of the facilities at this source, except core machine CB-5, have been constructed and permitted prior to July 27, 1997, the requirements of 326 IAC 2-4.1-1 do not apply. Potential single and total HAP emissions from core machine CB-5 are less than 10 and 25 tons per year, respectively, therefore, it is not subject to this rule.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions, from the following emission units shall not exceed the PM limits as specified in the table below:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lbs/hr)
Electric Induction Furnace #1	5.5	12.85
Electric Induction Furnace #2	5.5	12.85
Electric Induction Furnace #3	5.0	12.05
Electric Induction Furnace #4	5.0	12.05
Charge Handling System	21.0	31.53
Scrap Preheater	21.0	31.53
Inoculation Process	21.0	31.53
Mold Line 1 Sand Mueller	102.5	51.53
Mold Line #1 Pouring Operation	112.75	52.49
Mold Line #1 Cooling Operation	112.75	52.49
Mold Line #1 Shakeout Operation	112.75	52.49
Mold Line #1 Punch Up Operation	112.75	52.49
Casting Transfer Operation	112.75	52.49
Shot Blast #1	5.125	12.25
Shot Blast #2	5.125	12.25
Mold Line #1 Grinders	0.89 (each)	3.79
Mold Line #2 Sand Handling	107.5	52.01
Mold Line #2 Pouring/Cooling Operation	118.25	52.98
Mold Line #2 Punchup/Cooling Operation	118.25	52.98
Mold Line #2 Shakeout Operation	118.25	52.98
Shot Blast #3	5.375	12.65
Shot Blast #4	5.375	12.65
3 grinders exhausting to S-6	2.70	7.98
4 grinders exhausting to S-10	3.6	9.67
North Core Sand Mixer	9.0	17.87
South Core Sand Mixer	9.0	17.87
New Core Sand Mixer	9.0	17.87
Core Sand Reclaim System	1.03	4.18

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

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

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

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

Collector #7 shall be in operation at all times the inoculation process is in operation.

Collector #1 and Collector #3 shall be in operation at all times the Mold Line #1 sand muller is in operation, in order to comply with this limit.

Collector #10 shall be in operation at all times the shot blast #1 is in operation, in order to comply with this limit.

Collector #10 shall be in operation at all times the shot blast #2 is in operation, in order to comply with this limit.

Collector #5 shall be in operation at all times the Mold Line #2 sand handling operation is in operation, in order to comply with this limit.

Collector #6 shall be in operation at all times the shot blast #3 is in operation, in order to comply with this limit.

Collector #6 shall be in operation at all times the shot blast #4 is in operation in order to comply with this limit.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

(a) The #2 Mold Line pouring operation, electric induction furnaces, charge handling system, scrap preheater, inoculation process, core machine 103, core machine 106, N-321, and S-321 are not subject to the requirements of 326 IAC 8-1-6 because they were constructed prior to January 1, 1980.

(b) Pursuant to CP 065-2749-00007, issued on March 24, 1993, and modified by SPM 065-16577-00007, issued on March 11, 2005, the following VOC emission limits and production limit have been determined to be BACT for the #1 Mold Line Pouring and Shakeout operations:

(1) VOC emissions from the Mold Line #1 Pouring, Cooling and Shakeout operation shall not exceed 1.34 pounds of VOC per ton of metal charged;

(2) The throughput of metal to Mold Line #1 shall be less than 76,572 tons per twelve (12) consecutive month period.

(c) Potential VOC emissions from CB-1, CB-2, CB-3, CB-4, CB-5 and the Disa core machine are greater than 25 tons per year. All of these core machines were constructed after January 1, 1980; therefore these core machines are subject to this rule.

Pursuant to CP 065-2749-00007, issued on March 24, 1993, modified by SPM 065-16577-00007, the following limits have been established:

(1) VOC emissions from core machines CB-1 and CB-2 shall be limited to less than 25 tons per year as follows:

(A) The total resin usage for core machines CB-1 and CB-2 shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. Total DMEA usage for core machines CB-1 and CB-2 shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) The VOC emissions (not including DMEA) from core machines CB-1 and CB-2 shall not exceed 0.05 pound per pound of resin.

(2) VOC emissions from the core machine identified as Disa, shall be limited to less than 25 tons per year as follows:

(A) The total resin usage for the Disa core machine shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. DMEA usage for the Disa core machine shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) The VOC emissions (not including DMEA) from the Disa core machine shall not exceed 0.05 pound per pound of resin.

Pursuant CP 065-3495-00007, issued on June 22, 1994, and modified by SPM 065 -16577-00007, issued on March 11, 2005, the following limits were established:

(1) The total resin usage for core machines CB-3 and CB-4 shall be less than 271,636 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. Total DMEA usage for core machines CB-3 and CB-4 shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from core machines CB-3 and CB-4 shall not exceed 0.05 pound per pound of resin.

Pursuant to MSM 065-12236-00007, issued on July 24, 2000, and modified by SPM 065-16577-00007, issued on March 11, 2005, VOC emissions from core machine CB-5 shall be limited to less than 25 tons per year as follows:

(1) The total resin usage for core machine CB-5 shall be less than 271,633 pounds of resin per twelve (12) consecutive month period with compliance determined at the end of each month. DMEA usage for core machine CB-5 shall be less than 36,218 pounds of DMEA per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The VOC emissions (not including DMEA) from core machine CB-5 shall not exceed 0.05 pound per pound of resin.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7(Part 70) are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will

arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance determination requirements applicable to this source are as follows:

Testing:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Electric induction furnaces #1, #2, #3 and #4, scrap preheater and inoculation process	Dust collector #7	Before October 10, 2012	PM	Once every 5 years	112.86 lbs/hr PM (combined)
Mold Line #1 metal pouring, metal cooling, mold shakeout, mold punch up, casting transfer, and sand handling operations	Dust Collectors #1 & #3	Before October 10, 2012 for PM. Before April 1, 2008 for PM_{10}.	PM/PM10	Once every 5 years	18.27 lbs/hr PM 8.5 lbs/hr PM10
Mold Line #1 casting finishing operations of two (2) shot blast machines and four (4) grinders.	Dust collector #10	Before April 2, 2008	PM/PM10	Once every 5 years	0.66 lbs/hr PM 1.5 lbs/hr PM10 (Mold Line #1 casting finishing operations)
Mold Line #2 mold punch-up operation and sand handling	Dust collector #5	Before July 20, 2010	PM	Once every 5 years	104.99 lb/hr PM (combined)
Shotblast 3 & 4	Dust collector #6	Before July 19, 2010	PM	Once every 5 years	25.3 lb/hr PM

Monitoring:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Dust Collector #10	Water Pressure Drop	Daily	1.0 to 8.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Dust Collector #5	Water Pressure Drop	Daily	2.0 to 8.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Dust Collector #6	Water Pressure Drop	Daily	3.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

The monitoring requirements for Dust Collectors #1 and #3 are part of the CAM plan and the parametric monitoring of pressure drop readings and VE notations are required pursuant to 40 CFR 64. The monitoring frequency for units that are not “large” is once daily.

These monitoring conditions are necessary because the Dust Collectors, #5, #6, and #10 for the Mold Line # 1 and Mold Line #2 operations must operate properly to ensure compliance with 326 IAC 6-3 Particulate Matter Limitations and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on November 6, 2006.

Conclusion

The operation of this stationary gray iron and ductile foundry shall be subject to the conditions of the attached Part 70 Operating Permit No. T 065-23866-00007.

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Melting - Electric	21	PM	0.90	82.78	Collector #7	99.00%	0.83
Induction Furnace (#1-4)		PM-10	0.86	79.10	Collector #7	99.00%	0.79
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
EPA SCC# 3-04-003-03		VOC	0.00	0.00			0.00
FIRE 6.25		CO	0.00	0.00			0.00
AP-42 Ch. 12.10		chromium	3.4E-04	3.1E-02	Collector #7	99.00%	3.1E-04
Fifth edition 1995		nickel	6.0E-04	5.5E-02	Collector #7	99.00%	5.5E-04
Speciate v. 3.1		arsenic	1.1E-04	1.0E-02	Collector #7	99.00%	1.0E-04
		antimony	1.7E-03	1.6E-01	Collector #7	99.00%	1.6E-03
	FIRE 6.25	manganese	2.3E-02	2.1E+00	Collector #7	99.00%	2.1E-02
	FIRE 6.25	lead	9.0E-03	8.3E-01	Collector #7	99.00%	8.3E-03
Methodology:		Total HAP's		3.2E+00			3.2E-02

Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
Criteria pollutant factors are from AP-42 and Fire 6.25. HAP emission factors for lead and manganese are from FIRE 6.25.
All other HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

USEPA Speciate v 3.1 Data	
Metal	Gen. Foundry
Chromium	0.038%
Nickel	0.067%
Arsenic	0.013%
Antimony	0.185%

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Charge Handling	21	PM	0.60	55.19			55.19
Source of Pollutant Factors:		PM-10	0.36	33.11			33.11
SCC# 3-04-003-15		SO2	0.00	0.00			0.00
FIRE 6.25		NOx	0.00	0.00			0.00
AP-42 Ch. 12.10		VOC	0.00	0.00			0.00
Fifth edition 1995		CO	0.00	0.00			0.00

Methodology:

Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Inoculation	21	PM	4	367.92	Hood to #7	79.00%	77.26
		PM-10	4	367.92	Hood to #7	79.00%	77.26
Source of		SO2	0	0.00			0.00
Pollutant Factors:		NOx	0	0.00			0.00
FIRE 6.25		VOC	0.005	0.46			0.46
EPA SCC# 3-04-003-10		CO	0	0.00			0.00
AP-42 Ch. 12.10		manganese	1.2E-01	1.1E+01	Hood to #7	79.00%	2.3E+00
Fifth edition 1995		chromium	1.5E-03	1.4E-01	Hood to #7	79.00%	2.9E-02
Speciate v. 3.1		nickel	2.7E-03	2.5E-01	Hood to #7	79.00%	5.2E-02
		arsenic	5.2E-04	4.8E-02	Hood to #7	79.00%	1.0E-02
		antimony	7.4E-03	6.8E-01	Hood to #7	79.00%	1.4E-01
		lead	1.5E-02	1.4E+00	Hood to #7	79.00%	3.0E-01
		Total HAP's		1.4E+01			2.8E+00

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs

HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

USEPA Speciate v 3.1 Data	
Metal	Gen. Foundry
Manganese	3.100%
Chromium	0.038%
Nickel	0.067%
Arsenic	0.013%
Antimony	0.185%
Lead	0.385%

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Sand Handling, Mold Line #1	102.5	PM	3.6	1616.2	Collectors 1 &3	98.00%	32.3
Source of		PM-10	0.54	242.4	Collectors 1 &3	98.00%	4.8
Pollutant Factors:							
FIRE 6.25							
EPA SCC# 3-04-003-50							

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Pouring, Mold Line #1	10.25	PM	4.20	188.56	Collectors 1 &3	98.00%	3.77
Maximum Throughput		PM-10	2.06	92.48	Collectors 1 &3	98.00%	1.85
Source of		SO2	0.02	0.90			0.90
Pollutant Factors:		NOx	0.01	0.45			0.45
FIRE 6.25		VOC	0.14	6.29			6.29
SCC# 3-04-003-18,20		*CO	6.00	269.37			269.37
Speciate v. 3.1		chromium	1.6E-03	7.2E-02	Collectors 1 &3	98.00%	1.4E-03
		nickel	2.8E-03	1.3E-01	Collectors 1 &3	98.00%	2.5E-03
		arsenic	5.5E-04	2.5E-02	Collectors 1 &3	98.00%	4.9E-04
		manganese	1.3E-01	5.8E+00	Collectors 1 &3	98.00%	1.2E-01
		antimony	7.8E-03	3.5E-01	Collectors 1 &3	98.00%	7.0E-03
		lead	1.6E-02	7.2E-01	Collectors 1 &3	98.00%	1.4E-02
		Total Hap's		7.1E+00			1.4E-01

Methodology:

Ef = Emission factor

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

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

1ton = 2000 lbs

HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)
*CO emission factor of 6 lbs/ton includes pouring, cooling, and shakeout.

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Pouring/Casting, Mold Line #1	8.74	PM	4.20	160.78	Collectors 1 &3	98.00%	3.22
Limited Throughput		PM-10	2.06	78.86	Collectors 1 &3	98.00%	1.58
Source of		SO2	0.02	0.77			0.77
Pollutant Factors:		NOx	0.01	0.38			0.38
FIRE 6.25		VOC	0.14	5.36			5.36
SCC# 3-04-003-18,20		CO	6.00	229.69			229.69
Speciate v. 3.1		chromium	1.6E-03	6.1E-02	Collectors 1 &3	98.00%	1.2E-03
		nickel	2.8E-03	1.1E-01	Collectors 1 &3	98.00%	2.1E-03
		arsenic	5.5E-04	2.1E-02	Collectors 1 &3	98.00%	4.2E-04
		manganese	1.3E-01	5.0E+00	Collectors 1 &3	98.00%	1.0E-01
		antimony	7.8E-03	3.0E-01	Collectors 1 &3	98.00%	6.0E-03
		lead	1.6E-02	6.1E-01	Collectors 1 &3	98.00%	1.2E-02
		Total HAP's		6.1E+00			0.1

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Cooling, Mold Line #1	10.25	PM	1.40	62.85	Collectors 1 &3	99.00%	0.63
Maximum Throughput		PM-10	1.40	62.85	Collectors 1 &3	99.00%	0.63
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	0.00	0.00			0.00
SCC# 3-04-003-25		CO	---	0.00			0.00
Speciate v. 3.1		chromium	5.3E-04	0.02	Collectors 1 &3	99.00%	0.00
		nickel	9.4E-04	0.04	Collectors 1 &3	99.00%	0.000
		arsenic	1.8E-04	0.01	Collectors 1 &3	99.00%	0.000
		manganese	4.3E-02	1.93	Collectors 1 &3	99.00%	0.02
		antimony	2.6E-03	0.12	Collectors 1 &3	99.00%	0.001
		lead	5.4E-03	0.24	Collectors 1 &3	99.00%	0.002
		Total HAP's		2.4E+00			0.024

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Cooling, Mold Line #1	8.74	PM	1.40	53.59	Collectors 1 &3	99.00%	0.54
Limited Throughput		PM-10	1.40	53.59	Collectors 1 &3	99.00%	0.54
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	0.00	0.00			0.00
SCC# 3-04-003-25		CO	---	0.00			0.00
Speciate v. 3.1		chromium	5.3E-04	0.02	Collectors 1 &3	99.00%	0.000
		nickel	9.4E-04	0.04	Collectors 1 &3	99.00%	0.000
		arsenic	1.8E-04	0.01	Collectors 1 &3	99.00%	0.000
		manganese	4.3E-02	1.65	Collectors 1 &3	99.00%	0.02
		antimony	2.6E-03	0.10	Collectors 1 &3	99.00%	0.00
		lead	5.4E-03	0.21	Collectors 1 &3	99.00%	0.00
		Total HAP's		2.0E+00			0.020

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Shakeout, Mold Line 1	10.25	PM	3.20	143.66	Collectors 1&3	98.00%	2.87
Maximum Throughput		PM-10	2.24	100.56	Collectors 1&3	98.00%	2.01
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	1.20	53.87			53.87
SCC# 3-04-003-31		CO	---	0.00			0.00
AP-42 Ch. 12.10		chromium	1.2E-03	5.5E-02	Collectors 1 &3	98.00%	1.1E-03
Fifth edition 1995		nickel	2.1E-03	9.6E-02	Collectors 1 &3	98.00%	1.9E-03
Speciate v. 3.1		arsenic	4.2E-04	1.9E-02	Collectors 1 &3	98.00%	3.8E-04
		manganese	9.9E-02	4.5E+00	Collectors 1 &3	98.00%	8.9E-02
		antimony	5.9E-03	2.7E-01	Collectors 1 &3	98.00%	5.3E-03
		lead	1.2E-02	5.5E-01	Collectors 1 &3	98.00%	1.1E-02
		Total HAP's		5.4E+00			0.109

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Shakeout, Mold Line 1	8.74	PM	3.20	122.50	Collectors 1&3	98.00%	2.45
Limited Throughput		PM-10	2.24	85.75	Collectors 1&3	98.00%	1.71
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	1.20	45.94			45.94
SCC# 3-04-003-31		CO	---	0.00			0.00
AP-42 Ch. 12.10		chromium	1.2E-03	4.7E-02	Collectors 1&3	98.00%	9.3E-04
Fifth edition 1995		nickel	2.1E-03	8.2E-02	Collectors 1&3	98.00%	1.6E-03
Speciate v. 3.1		arsenic	4.2E-04	1.6E-02	Collectors 1&3	98.00%	3.2E-04
		manganese	9.9E-02	3.8E+00	Collectors 1&3	98.00%	7.6E-02
		antimony	5.9E-03	2.3E-01	Collectors 1&3	98.00%	4.5E-03
		lead	1.2E-02	4.7E-01	Collectors 1&3	98.00%	9.4E-03
		Total HAP's		4.6E+00			0.093

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blast 1 & 2	10.250	PM	17.00	763.22	Collector #10	99.00%	7.63
Maximum Throughput		PM-10	1.70	76.32	Collector #10	99.00%	0.76
		SO2	0.00	0.00			0.00
Source of		NOx	0.00	0.00			0.00
Pollutant Factors:		VOC	0.00	0.00			0.00
FIRE 6.25		CO	0.00	0.00			0.00
SCC# 3-04-003-40		chromium	6.5E-03	2.9E-01	Collector #10	99.00%	2.9E-03
AP-42 Ch. 12.10		nickel	1.1E-02	5.1E-01	Collector #10	99.00%	5.1E-03
Fifth edition 1995		manganese	5.2E-01	2.3E+01	Collector #10	99.00%	2.3E-01
Speciate v.3.1		antimony	3.1E-02	1.4E+00	Collector #10	99.00%	1.4E-02
		arsenic	2.2E-03	9.9E-02	Collector #10	99.00%	9.9E-04
		Lead	6.5E-02	2.9E+00	Collector #10	99.00%	2.9E-02
		Total HAP's		2.82E+01			0.282

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blast 1 & 2	8.740	PM	17.00	650.78		99.00%	6.51
Limited Throughput		PM-10	1.70	65.08		99.00%	0.65
		SO2	0.00	0.00			0.00
Source of		NOx	0.00	0.00			0.00
Pollutant Factors:		VOC	0.00	0.00			0.00
FIRE 6.25		CO	0.00	0.00			0.00
SCC# 3-04-003-40		chromium	6.5E-03	0.25		99.00%	2.5E-03
AP-42 Ch. 12.10		nickel	1.1E-02	0.44		99.00%	4.4E-03
Fifth edition 1995		manganese	5.2E-01	19.91		99.00%	2.0E-01
Speciate v.3.1		antimony	3.1E-02	1.19		99.00%	1.2E-02
		arsenic	2.2E-03	0.08		99.00%	8.5E-04
		Lead	6.5E-02	2.49		99.00%	2.5E-02
		Total HAP's		2.4E+01			0.243

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Mold Line #1 Grinders	3.560	PM	0.01	0.16		98.00%	0.00
Source of		PM-10	0.0045	0.07		98.00%	0.00
Pollutant Factors:		SO2	0.00	0.00			0.00
FIRE 6.25		NOx	0.00	0.00			0.00
SCC# 3-04-003-60		VOC	0.00	0.00			0.00
AP-42 Ch. 12.10		CO	0.00	0.00			0.00
Fifth edition 1995		chromium	3.8E-06	5.9E-05		98.00%	1.2E-06
Speciate v.3.1		antimony	1.9E-05	3.0E-04		98.00%	5.9E-06
		nickel	6.7E-06	1.0E-04		98.00%	2.1E-06
		arsenic	1.3E-06	2.0E-05		98.00%	4.1E-07
		manganese	3.1E-04	4.8E-03		98.00%	9.7E-05
		Lead	3.9E-05	6.1E-04		98.00%	1.2E-05
		Total HAP's		5.9E-03			0.000

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Sand Handling Line#2 Sand	107.5	PM	3.6	1695.1	Collector #5	98.00%	33.9
Source of		PM-10	0.54	254.3	Collector #5	98.00%	5.1
Pollutant Factors:							
FIRE 6.25							
EPA SCC# 3-04-003-50							

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Pouring/Casting	10.75	PM	4.20	197.76			197.76
Line #2 Pour/Cool		PM-10	2.06	97.00			97.00
Source of		SO2	0.02	0.94			0.94
Pollutant Factors:		NOx	0.01	0.47			0.47
FIRE 6.25		VOC	0.14	6.59			6.59
SCC# 3-04-003-18,20		*CO	6.00	282.51			282.51
Speciate v. 3.1		chromium	1.6E-03	7.5E-02			7.5E-02
		nickel	2.8E-03	1.3E-01			1.3E-01
		arsenic	5.5E-04	2.6E-02			2.6E-02
		manganese	1.3E-01	6.1E+00			6.1E+00
		antimony	7.8E-03	3.7E-01			3.7E-01
		lead	1.6E-02	7.6E-01			7.6E-01
		Total HAP's		7.5E+00			7.5E+00

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)
*CO emission factor of 6 lbs/ton includes pouring, cooling, and shakeout.

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Cooling	10.75	PM	1.40	65.92	Collector #5	98.00%	1.32
Line #2 Punchup / Cool		PM-10	1.40	65.92	Collector #5	98.00%	1.32
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	0.00	0.00			0.00
SCC# 3-04-003-25		CO	---	0.00			0.00
Speciate v. 3.1		chromium	5.3E-04	0.02	Collector #5	98.00%	0.000
		nickel	9.4E-04	0.044	Collector #5	98.00%	0.001
		arsenic	1.8E-04	0.008	Collector #5	98.00%	0.000
		manganese	4.3E-02	2.02	Collector #5	98.00%	0.040
		antimony	2.6E-03	0.122	Collector #5	98.00%	0.002
		lead	5.4E-03	0.254	Collector #5	98.00%	0.005
		Total HAP's		2.5			0.05

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr

Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Castings Shakeout	10.75	PM	3.20	150.67	Collector #2	98.00%	3.01
Line #2 Shakeout		PM-10	2.24	105.47	Collector #2	98.00%	2.11
Source of		SO2	0.00	0.00			0.00
Pollutant Factors:		NOx	0.00	0.00			0.00
FIRE 6.25		VOC	1.20	56.50			56.50
SCC# 3-04-003-31		CO	---	0.00			0.00
AP-42 Ch. 12.10		chromium	1.2E-03	5.7E-02	Collector #2	98.00%	1.1E-03
Fifth edition 1995		nickel	2.1E-03	1.0E-01	Collector #2	98.00%	2.0E-03
Speciate v. 3.1		arsenic	4.2E-04	2.0E-02	Collector #2	98.00%	4.0E-04
		manganese	9.9E-02	4.7E+00	Collector #2	98.00%	9.3E-02
		antimony	5.9E-03	2.8E-01	Collector #2	98.00%	5.6E-03
		lead	1.2E-02	5.8E-01	Collector #2	98.00%	1.2E-02
		Total HAP's		5.70			0.11

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shotblasters #3 & #4	10.750	PM	17.00	800.45	Collector #6	98.00%	16.01
Source of		PM-10	1.70	80.04	Collector #6	98.00%	1.60
Pollutant Factors:		SO2	0.00	0.00			0.00
FIRE 6.25		NOx	0.00	0.00			0.00
SCC# 3-04-003-40		VOC	0.00	0.00			0.00
AP-42 Ch. 12.10		CO	0.00	0.00			0.00
Fifth edition 1995		chromium	6.5E-03	3.0E-01	Collector #6	98.00%	6.1E-03
Speciate v. 3.1		manganese	5.20E-01	2.4E+01	Collector #6	98.00%	4.9E-01
		nickel	1.1E-02	5.4E-01	Collector #6	98.00%	1.1E-02
		arsenic	2.2E-03	1.0E-01	Collector #6	98.00%	2.1E-03
		antimony	3.1E-02	1.5E+00	Collector #6	98.00%	2.9E-02
		Lead	6.5E-02	3.1E+00	Collector #6	98.00%	6.1E-02
		Total HAP's		29.54			0.60

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Grinders exhausting to S- 6&S-10	6.300	PM	0.01	0.28	Collector #6	98.00%	0.0055
Source of		PM-10	0.0045	0.12	Collector #6	98.00%	0.0025
Pollutant Factors:		SO2	0.00	0.00			0.00
FIRE 6.25		NOx	0.00	0.00			0.00
SCC# 3-04-003-60		VOC	0.00	0.00			0.00
AP-42 Ch. 12.10		CO	0.00	0.00			0.00
Fifth edition 1995		chromium	3.8E-06	1.0E-04	Collector #6	98.00%	2.1E-06
Speciate v. 3.1		nickel	6.7E-06	1.8E-04	Collector #6	98.00%	3.7E-06
		arsenic	1.3E-06	3.6E-05	Collector #6	98.00%	7.2E-07
		magnesium	3.1E-04	8.6E-03	Collector #6	98.00%	1.7E-04
		antimony	1.9E-05	5.2E-04	Collector #6	98.00%	1.0E-05
		Lead	3.9E-05	1.1E-03	Collector #6	98.00%	2.2E-05
		Total HAP's		0.01			0.00

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs
HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1. (See page 3 for details)

Appendix A: Emission Calculations
Gray Ductile Iron Foundry Emissions
Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
North Core Sand Mixer	9	PM	3.6	141.9	Bin Vent 2	98.00%	2.8
Source of		PM-10	0.54	21.3	Bin Vent 2	98.00%	0.4
Pollutant Factors:							
FIRE 6.25							
EPA SCC# 3-04-003-50							

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
South Core Sand Mixer	9	PM	3.6	141.9	Bin Vent 3	98.00%	2.8
Source of		PM-10	0.54	21.3	Bin Vent 3	98.00%	0.4
Pollutant Factors:							
FIRE 6.25							
EPA SCC# 3-04-003-50							

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
New Core Sand Mixer	9	PM	3.6	141.9	Bin Vent 4	98.00%	2.8
Source of		PM-10	0.54	21.3	Bin Vent 4	98.00%	0.4
Pollutant Factors:							
FIRE 6.25							
EPA SCC# 3-04-003-50							

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
1ton = 2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100 Preheater

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
9.8	86.2

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.3	0.0	4.3	0.2	3.6
Controlled Emissions in tons/yr	0.001	0.003	0.0	4.3	0.2	3.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Emissions from the Scrap Preheater are controlled by dust collector #7. Control Efficiency = 99%.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 16 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100 Preheater
HAPs Emissions

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.051E-05	5.172E-05	3.232E-03	7.758E-02	1.465E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.155E-05	4.741E-05	6.034E-05	1.638E-05	9.051E-05
				Total HAP's	0.08

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculation
Uncontrolled VOC Emissions from Phenolic Urethane Cold Box Core Making

Company Name: Grede Foundries, Inc.
Address: 2700 East Plum Street, New Castle, Indiana 47362
Permit #: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Machine	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lbs/ton cores)	Maximum DMEA usage (lb DMEA/ton cores)	Uncontrolled VOC Emissions from Resin Evaporation (tons/yr)	Uncontrolled DMEA Emissions from DMEA Usage (tons/yr)	Total Uncontrolled VOC Emissions (tons/yr)	*Controlled DMEA Emissions (tons/yr)	Total VOC Emissionswith controls (tons/yr)
CB-1	1.5	1.2	1.2	3.2	7.88	21.02	28.91	0.42	8.30
CB-2	1.5	1.2	1.2	3.2	7.88	21.02	28.91	0.42	8.30
CB-3	1.5	1.2	1.2	3.2	7.88	21.02	28.91	0.42	8.30
CB-4	1.5	1.2	1.2	3.2	7.88	21.02	28.91	0.42	8.30
CB-5	1.5	1.2	1.2	3.2	7.88	21.02	28.91	0.42	8.30
Disa	1.77	1.2	1.2	3.2	9.30	24.81	34.11	0.50	9.80
103	5.1	1.2	1.2	3.2	26.81	71.48	98.29	1.43	28.24
106	5.1	1.2	1.2	3.2	26.81	71.48	98.29	1.43	28.24
N-321	4.08	1.2	1.2	3.2	21.44	57.19	78.63	1.14	22.59
S-321	4.08	1.2	1.2	3.2	21.44	57.19	78.63	1.14	22.59
Total					**145.22**	**387.26**	**532.49**	**7.75**	**152.97**

Methodology

Uncontrolled PTE (tons/yr)=Maximum throughput (tons/hr) x Emission factor (lbs/ton) x 8760 hr/yr x 1ton/2000 lbs.

Controlled PTE (tons/yr) = Uncontrolled PTE (tons/yr) x (1- control efficiency)

Appendix A: Emission Calculation
Limited VOC Emissions from Phenolic Urethane Cold Box Core Making

Company Name: Grede Foundries, Inc.
Address: 2700 East Plum Street, New Castle, Indiana 47362
Permit #: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Limits necessary to render 326 IAC 8-1-6 (BACT) and/or 326 IAC 2-2 (PSD) not applicable

Machine	Core Production Limit (tons cores/yr)	VOC Emission Factor from Resin Evaporation (lbs/ton cores)	VOC Emission Factor from Resin Evaporation (lbs/lbs resin)	Resin Usage Limit (lbs/yr)	DMEA EF (lb/tons cores)	Limited VOC Emissions from resin (tons/yr)	Limited DMEA Emissions from DMEA Usage (tons/yr)	Total Limited VOC Emissions	*Controlled DMEA Emissions (tons/yr)	Total VOC Emissionsafter control (tons/yr)
CB-1 & CB-2	11318	1.2	0.05	271636	3.2	6.79	18.11	24.90	0.36	7.15
CB-3 & CB-4	11318	1.2	0.05	271636	3.2	6.79	18.11	24.90	0.36	7.15
CB-5	11318	1.2	0.05	271636	3.2	6.79	18.11	24.90	0.36	7.15
Disa	11318	1.2	0.05	271636	3.2	6.79	18.11	24.90	0.36	7.15
SUbtotal						**27.16**	**72.44**	**99.60**	**1.45**	**28.61**
SubTotal +Controlled Emissions from 103, 106, N-321, &S-321										**130.27**

Methodology

Uncontrolled PTE (tons/yr)=Maximum throughput (tons/hr) x Emission factor (lbs/ton) x 8760 hr/yr x 1ton/2000 lbs.

Controlled PTE (tons/yr) = Uncontrolled PTE (tons/yr) x (1- control efficiency)

Appendix A: Gray Ductile Iron Foundry Operations
HAP Emission Calculations

Company Name: Grede New Castle, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Operating Permit No.: T065-23866-00007
Reviewer: Timothy R. Pettifor/ GMM
Date: 10/10/2007

Material	Process	Maximum Usage (lbs/hr)	Weight % Phenol	Weight % MDI	Weight % Naphthalene	Weight % Polymeric Diphenyl methane	Phenol Emissions (ton/yr)	MDI Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Polymeric Diphenylmethane Emissions (ton/yr)
Phenolic Urethane Cold Box Core Making										
Part I Binder	Disa, CB-1 - CB-5	99.00	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.28	0.00
Part II Binder	Disa, CB-1 - CB-5	81.00	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
Part I Binder	103 & 106	99.00	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.28	0.00
Part II Binder	103 & 106	81.00	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
Part I Binder	N-321 & S-321	89.76	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.26	0.00
Part II Binder	N-321 & S-321	73.44	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
							0.00	**0.00**	**0.82**	**0.00**

	Total HAPs (tons/yr)
Total Potential Emissions:	**0.82**

Material	Process	Limited Usage (lbs/hr)	Weight % Phenol	Weight % MDI	Weight % Naphthalene	Weight % Polymeric Diphenyl methane	Phenol Emissions (ton/yr)	MDI Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Polymeric Diphenylmethane Emissions (ton/yr)
Phenolic Urethane Cold Box Core Making										
Part I Binder	Disa, CB-1 - CB-5	17.05	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.05	0.00
Part II Binder	Disa, CB-1 - CB-5	13.95	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
Part I Binder	103 & 106	99.00	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.28	0.00
Part II Binder	103 & 106	81.00	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
Part I Binder	N-321 & S-321	89.76	6.50%	0.00%	2.00%	0.00%	0.00	0.00	0.26	0.00
Part II Binder	N-321 & S-321	73.44	0.00%	42.00%	0.00%	35.00%	0.00	0.00	0.00	0.00
							0.00	**0.00**	**0.59**	**0.00**

	Total HAPs (tons/yr)
Total Limited Emissions:	**0.59**

Reduction Factors for Core Making

Pollutant	Binder Reduction Factor
Phenol	0
MDI	0
Naphthalene	0.0325
Polymeric Diphenylmethane	0

METHODOLOGY

Max. Hourly Resin Usage Rate = Max. Sand Throughput to Mixer (tons/hr) * 1% (max. resin content) * 2000 lbs/ton

HAP Emissions from Resins = Max. Hourly Usage Rate * % HAP * Reduction Factor * 8760 hrs/yr * 1 ton/2000 lbs

Reduction factors obtained from the American Foundrymen's Society Publication entitled "Form R Reporting of Binder Chemicals used in Foundries", and refers to the weight percent of HAP that is emitted to the atmosphere.

Limited resin usage based on calculations for core making on page 11 of this Appendix A.

Appendix A: Gray Ductile Iron Foundry Operations
Potential HAP Emission Calculations - Pouring, Cooling and Shakeout

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Process	Maximum Usage (tons/yr)	Acrolein EF (lb/lb)	Benzene EF (lb/lb)	Formaldehyde EF (lb/lb)	Hydrogen Cyanide EF (lb/lb)	Xylenes EF (lb/lb)	Naphthalene EF (lb/lb)	Phenol EF (lb/lb)	Toluene EF (lb/lb)	Aromatic Amines EF (lb/lb)	Aldehydes EF (lb/lb)	Potential Acrolein Emissions (tons/yr)	Potential Benzene Emissions (tons/yr)	Potential Formaldehyde Emissions (tons/yr)	Potential HCN Emissions (ton/yr)	Potential Xylenes Emissions (tons/yr)	Potential Naphthalene Emissions (tons/yr)	Potential Phenol Emissions (ton/yr)	Potential Toluene Emissions (tons/yr)	Potential Aromatic Amines Emissions (tons/yr)	Potential Aldehyde Emissions (tons/yr)
CB1-CB5, Disa	946.08	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.029	5.062	0.021	0.996	0.540	0.021	3.693	0.788	0.332	0.207
103 &106	946.08	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.029	5.062	0.021	0.996	0.540	0.021	3.693	0.788	0.332	0.207
N-321 &S-321	857.78	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.027	4.590	0.019	0.903	0.490	0.019	3.349	0.715	0.301	0.188
												0.09	**14.71**	**0.06**	**2.90**	**1.57**	**0.06**	**10.74**	**2.29**	**0.97**	**0.60**

Total Potential Emissions (tons/yr) **33.98**

Material	Limited usage (tons/yr)	Acrolein EF (lb/lb)	Benzene EF (lb/lb)	Formaldehyde EF (lb/lb)	Hydrogen Cyanide EF (lb/lb)	Xylenes EF (lb/lb)	Naphthalene EF (lb/lb)	Phenol EF (lb/lb)	Toluene EF (lb/lb)	Total Aromatic Amines EF (lb/lb)	Total Aldehydes EF (lb/lb)	Limited Acrolein Emissions (tons/yr)	Limited Benzene Emissions (tons/yr)	Limited Formaldehyde Emissions (ton/yr)	Limited HCN Emissions (tons/yr)	Limited Xylenes Emissions (tons/yr)	Limited Naphthalene Emissions (tons/yr)	Limited Phenol Emissions (tons/yr)	Limited Toluene Emissions (tons/yr)	Limited Aromatic Amines Emissions (tons/yr)	Limited Aldehyde Emissions (tons/yr)
CB1-CB5, Disa	543.20	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.017	2.907	0.012	0.572	0.310	0.012	2.121	0.452	0.191	0.119
103 &106	946.08	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.029	5.062	0.021	0.996	0.540	0.021	3.693	0.788	0.332	0.207
N-321 &S-321	857.78	0.000031	0.005351	0.000022	0.001053	0.000571	0.000022	0.003904	0.000833	0.000351	0.000219	0.027	4.590	0.019	0.903	0.490	0.019	3.349	0.715	0.301	0.188
												0.07	**12.56**	**0.05**	**2.47**	**1.34**	**0.05**	**9.16**	**1.96**	**0.82**	**0.51**

Total Limited Emissions (tons/yr) **29.00**

Appendix A: Emissions Calculations
Source Name: Grede Foundries, Inc.
Source Location: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T065-23866-00007
Permit Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Particulate Emissions (PM/PM10) (tons/year)				
Emission Unit	Grain Loading (gr/dscf)	Air Flow Rate (acfm)	Uncontrolled Emissions (tons/yr)	Controlled Emissions (tons/yr) 90% Control Efficiency
Sand Reclaim System	0.03	4000	4.5	0.45
		Total Emissions	4.5	0.45

Methodology

Uncontrolled Emissions (tons/yr)= Grain Loading(gr/dscf) *Air Flow rate(acfm) *(60min/hr)* (lb/7000gr)* 8760 hr/yr * 1ton/2000 lbs.

Contolled Emissions = Uncontrolled Emissions *(1-Control Efficiency).

Appendix A: Emission Calculations
LPG-Propane

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content = 0.18 grains/100ft^3
6.00	574.43	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.4	0.4	0.0 *(0.10S)*	14.0	0.5 **TOC value	3.2
Potential Emission in tons/yr	0.1	0.1	0.0	4.0	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

Appendix A: Emission Calculations
LPG-Butane

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content =	0.18 grains/100ft^3
6.00	574.43		

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.5	0.5	0.0 *(0.10S)*	15.0	0.6 **TOC value	2.1
Potential Emission in tons/yr	0.1	0.1	0.0	4.3	0.2	0.6

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

Appendix A: Emission Summary

Company Name: Grede Foundries, Inc.
Address: 2700 East Plum Street, New Castle, Indiana 47362
Permit #: T 065-23866-0007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Uncontrolled Potential to Emit (tons/year)								
Process/ Emission Unit	**PM**	**PM10**	**SO2**	**NOx**	**VOC**	**CO**	**Single HAP**	**Total HAP's**
Electric Induction Furnaces	82.78	79.1	0	0	0	0	2.1 (Mn)	3.2
Charge Handling	55.19	33.11	0	0	0	0	_	_
Scrap Preheater	0.1	0.3	0	4.3	0.2	3.6	7.8 E-2 (Hexane)	0.08
Inoculation	367.92	367.92	0	0	0.46	0	1.1E01 (Mn)	1.40E+01
Sand Handling Line 1	1616.2	242.4	_	_	_	_	_	_
Pouring/Casting Line 1	188.56	92.48	0.9	0.45	6.29	269.4	5.8 (Mn)	7.1
Castings Cooling Line 1	62.85	62.85	0	0	0		1.93 (Mn)	2.4
Shakeout Line 1	143.66	100.56	0	0	53.87		4.5 (Mn)	5.4
Shot Blast 1 & 2	763.22	76.32	0	0	0	0	2.3E01 (Mn)	2.82E+01
Grinders Line 1	0.16	0.07	0	0	0	0	4.8E-03 (Mn)	5.90E-03
Sand Handling Line 2	1695.1	254.3	0	0	0	0	_	_
Pouring/Casting Line 2	197.76	97	0.94	0.47	6.59	282.5	6.1(Mn)	7.5
Castings Cooling Line 2	65.92	65.92	0	0	0		2.02 (Mn)	2.5
Shakeout Line 2	150.67	105.47	0	0	56.5		4.7(Mn)	5.7
Shot Blast 3 & 4	800.45	80.45	0	0	0	0	2.4E01 (Mn)	29.54
Mold Line #2 Grinders	0.28	0.12	0	0	0	0	8.6E-03 (Mn)	0.01
Organic HAP's Pouring, Cooling, & Shakeout	_	_	_	_	_	_	14.71 (Benz.)	33.98
North Core Sand Mixer & Core Machines	141.9	21.3	0	0	196.58	0	0.28 (Napth.)	0.28
South Core Sand Mixer & Core Machines	141.9	21.3	0	0	157.26	0	0.26 (Napth.)	0.26
New Core Sand Mixer& Core Machines	141.9	21.3	0	0	178.66	0	0.28 (Napth.)	0.28
Propane/LPG/Butane combustion sources	0.1	0.1	0	4.3	0.2	0.6	_	_
Core Sand Reclaim System	4.56	4.56	0	0	0	0	_	_
Total	**6621.18**	**1726.93**	**1.84**	**9.52**	**656.61**	**556.1**	_	**140**

Appendix A: Emission Summary

Company Name: Grede Foundries, Inc.
Address: 2700 East Plum Street, New Castle, Indiana 47362
Permit #: T 065-23866-0007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Limited Potential to Emit (tons/year)								
Process/ Emission Unit	**PM**	**PM10**	**SO2**	**NOx**	**VOC**	**CO**	**Single HAP**	**Total HAP's**
Electric Induction Furnaces	82.78	79.1	0	0	0	0	2.1 (Mn)	3.2
Charge Handling	55.19	33.11	0	0	0	0	_	_
Scrap Preheater	0.1	0.3	0	4.3	0.2	3.6	7.8 E-2 (Hexane)	0.08
*Inoculation	138.1	138.1	0	0	0.46	0	1.1E01 (Mn)	1.40E+01
Sand Handling Line 1	80.02	37.23	_	_	_	_	_	_
Pouring/Casting Line 1			0.77	0.38	5.36	229.7	5.0 (Mn)	6.1
Castings Cooling Line 1			0	0	0		1.65 (Mn)	2
Shakeout Line 1			0	0	45.94		3.8 (Mn)	4.6
Shot Blast 1 & 2	2.89	6.57	0	0	0	0	19.9 (Mn)	2.40E+01
Grinders Line 1			0	0	0	0	4.8E-03 (Mn)	5.90E-03
*Sand Handling Line 2	227.8	227.8	0	0	0	0	_	_
Pouring/Casting Line 2	197.76	97	0.94	0.47	6.59	282.5	6.1(Mn)	7.5
Castings Cooling Line 2	65.92	65.92	0	0	0		2.02 (Mn)	2.5
Shakeout Line 2	150.67	105.47	0	0	56.5		4.7(Mn)	5.7
*Shot Blast 3 & 4	110.8	110.8	0	0	0	0	2.4E01 (Mn)	29.54
Grinders exhausting to S-6	0.0028	0.0012	0	0	0	0	8.6E-03 (Mn)	0.01
Organic HAP's Pouring, Cooling, & Shakeout	_	_	_	_	_	_	14.71 (Benz.)	33.98
North Core Sand Mixer & Core Machines	6.13	2.37	0	0	196.58	0	0.28 (Napth.)	0.28
South Core Sand Mixer & Core Machines	6.13	2.37	0	0	157.26	0	0.26 (Napth.)	0.26
New Core Sand Mixer & Core Machines	141.9	21.3	0	0	28.61	0	0.05	0.05
Propane/LPG/Butane combustion sources	0.1	0.1	0	4.3	0.2	0.6	_	_
Core Sand Reclaim System	4.56	4.56	0	0	0	0	_	_
Total	**1270.9**	**932.1**	**1.71**	**9.45**	**497.7**	**516.4**	_	**134**

*PM/PM10 value reflects the 6-3-2 limit.

Appendix A: HAP's Emissions Calculations

Company Name: Grede Foundries, Inc.
Address City IN Zip: 2700 East Plum Street, New Castle, Indiana 47362
Permit Number: T 065-23866-00007
Reviewer: Timothy R. Pettifor
Date: 10/10/2007

Uncontrolled HAP's

Process	Chromium Emissions(tons/yr)	Nickel Emissions (tons/yr)	Arsenic Emissions (tons/yr)	Cadmium Emissions (tons/yr)	Manganese Emissions (tons/yr)	Antimony Emissions (tons/yr)	Lead Emissions (tons/yr)	Dichloro-benzene Emissions (tons/yr)	Hexane Emissions (tons/yr)	Acrolein Emissions (tons/yr)	Benzene Emissions (tons/yr)	Form-aldehyde Emissions (tons/yr)	HCN Emissions (ton/yr)	Xylenes Emissions (tons/yr)	Naphthalene Emissions (tons/yr)	Phenol Emissions (ton/yr)	Toluene Emissions (tons/yr)	Aromatic Amines Emissions (tons/yr)	Aldehyde Emissions (tons/yr)	Total Hap's (tons/yr)
Electric Induction Furnaces	3.10E-02	5.50E-02	1.00E-02	_	2.10E+00	1.60E-01	8.30E-01	_	_	_	_	_	_	_	_	_	_	_	_	3.2
Scrap Preheater	6.03E-05	9.05E-05	_	4.74E-05	1.64E-05	_	2.16E-05	5.17E-05	7.76E-02	_	_	_	_	_	_	_	_	_	_	0.08
Inoculation	1.40E-01	2.50E-01	4.80E-02	_	1.10E+01	6.80E-01	1.40E+00	_	_	_	_	_	_	_	_	_	_	_	_	14
Sand Handling Line 1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Pouring/Casting Line 1	7.20E-02	1.30E-01	2.50E-02	_	5.80E+00	3.50E-01	7.20E-01	_	_	_	_	_	_	_	_	_	_	_	_	7.1
Castings Cooling Line 1	2.00E-02	4.00E-02	1.00E-02	_	1.93E+00	1.20E-01	2.40E-01	_	_	_	_	_	_	_	_	_	_	_	_	2.4
Shakeout Line 1	5.50E-02	9.60E-02	1.90E-02	_	4.50E+00	2.70E-01	5.50E-01	_	_	_	_	_	_	_	_	_	_	_	_	5.4
Shot Blast 1 & 2	2.90E-01	5.10E-01	9.90E-02	_	2.30E+01	1.40E+00	2.90E+00	_	_	_	_	_	_	_	_	_	_	_	_	28.20
Grinders Line 1	5.90E-05	1.00E-04	2.00E-05	_	4.80E-03	3.00E-04	6.10E-04	_	_	_	_	_	_	_	_	_	_	_	_	0.0059
Sand Handling Line 2	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Pouring/Casting Line 2	7.50E-02	1.30E-01	2.60E-02	_	6.10E+00	3.70E-01	7.60E-01	_	_	_	_	_	_	_	_	_	_	_	_	7.5
Castings Cooling Line 2	2.00E-02	4.40E-02	8.00E-03	_	2.02E+00	1.22E-01	2.54E-01	_	_	_	_	_	_	_	_	_	_	_	_	2.5
Shakeout Line 2	5.70E-02	1.00E-01	2.00E-02	_	4.70E+00	2.80E-01	5.80E-01	_	_	_	_	_	_	_	_	_	_	_	_	5.7
Shot Blast 3 & 4	3.00E-01	5.40E-01	1.00E-01	_	2.40E+01	1.50E+00	3.10E+00	_	_	_	_	_	_	_	_	_	_	_	_	29.54
Grinders Mold Line #2	1.00E-04	1.80E-04	3.60E-05	_	8.60E-03	5.20E-04	1.10E-03													0.01
Organic HAP's Pouring,Cooling, &shakeout	_	_	_	_	_	_	_	_	_	9.00E-02	1.47E+01	6.00E-02	2.90E+00	1.57E+00	6.00E-02	1.07E+01	2.29E+00	9.70E-01	6.00E-01	33.98
North Core Sand Mixer &Core Machines	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2.80E-01	0.00E+00				0.28
South Core Sand Mixer&Core Machines	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2.60E-01	0.00E+00	_	_	_	0.26
New Core Sand Mixer & Core Machines	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2.80E-01	0.00E+00	_	_	_	0.28
Propane/LPG/Butane combustion sources	_	_	_	_	_	_	_	_	_	_	_	_	_	_						0.00
Core Sand Reclaim System	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Total	1.1	1.90E+00	3.65E-01	4.74E-05	8.52E+01	5.25E+00	1.13E+01	5.17E-05	7.76E-02	0.09	14.71	0.06	2.90	1.57	0.88	10.74	2.29	0.97	0.60	140

Limited Emissions

Process	Chromium Emissions(tons/yr)	Nickel Emissions (tons/yr)	Arsenic Emissions (tons/yr)	Cadmium Emissions (tons/yr)	Manganese Emissions (tons/yr)	Antimony Emissions (tons/yr)	Lead Emissions (tons/yr)	Dichloro-benzene Emissions (tons/yr)	Hexane	Acrolein (tons/yr)	Benzene (tons/yr)	Form-aldehyde Emissions (tons/yr)	HCN Emissions (ton/yr)	Xylenes Emissions (tons/yr)	Naphthalene Emissions (tons/yr)	Phenol Emissions (ton/yr)	Toluene Emissions (tons/yr)	Aromatic Amines Emissions (tons/yr)	Aldehyde Emissions (tons/yr)	Total Hap's (tons/yr)
Electric Induction Furnaces	3.10E-02	5.50E-02	1.00E-02	_	2.10E+00	1.60E-01	8.30E-01	_	_	_	_	_	_	_	_	_	_	_	_	3.2
Scrap Preheater	6.03E-05	9.05E-05	_	4.74E-05	1.64E-05	_	2.16E-05	5.17E-05	7.76E-02	_	_	_	_	_	_	_	_	_	_	0.08
Inoculation	1.40E-01	2.50E-01	4.80E-02	_	1.10E+01	6.80E-01	1.40E+00	_	_	_	_	_	_	_	_	_	_	_	_	14
Sand Handling Line 1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Pouring/Casting Line 1	6.10E-02	1.10E-01	2.10E-02	_	5.00E+00	3.00E-01	6.10E-01	_	_	_	_	_	_	_	_	_	_	_	_	6.10
Castings Cooling Line 1	2.00E-02	4.00E-02	1.00E-02	_	1.65E+00	1.00E-01	2.10E-01	_	_	_	_	_	_	_	_	_	_	_	_	2.0
Shakeout Line 1	4.70E-02	8.20E-02	1.60E-02	_	3.80E+00	2.30E-01	4.70E-01	_	_	_	_	_	_	_	_	_	_	_	_	4.6
Shot Blast 1 & 2	2.50E-01	4.40E-01	8.00E-02	_	1.99E+01	1.19E+00	2.49E+00	_	_	_	_	_	_	_	_	_	_	_	_	24
Grinders Line 1	5.90E-05	1.00E-04	2.00E-05	_	4.80E-03	3.00E-04	6.10E-04	_	_	_	_	_	_	_	_	_	_	_	_	0.0059
Sand Handling Line 2	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Pouring/Casting Line 2	7.50E-02	1.30E-01	2.60E-02	_	6.10E+00	3.70E-01	7.60E-01	_	_	_	_	_	_	_	_	_	_	_	_	7.5
Castings Cooling Line 2	2.00E-02	4.40E-02	8.00E-03	_	2.02E+00	1.22E-01	2.54E-01	_	_	_	_	_	_	_	_	_	_	_	_	2.5
Shakeout Line 2	5.70E-02	1.00E-01	2.00E-02	_	4.70E+00	2.80E-01	5.80E-01	_	_	_	_	_	_	_	_	_	_	_	_	5.7
Shot Blast 3 & 4	3.00E-01	5.40E-01	1.00E-01	_	2.40E+01	1.50E+00	3.10E+00	_	_	_	_	_	_	_	_	_	_	_	_	29.54
Grinders Mold Line #2	1.00E-04	1.80E-04	3.60E-05	_	8.60E-03	5.20E-04	1.10E-03													0.01
Organic HAP's Pouring,Cooling, &shakeout	_	_	_	_	_	_	_	_	_	9.00E-02	1.47E+01	6.00E-02	2.90E+00	1.57E+00	6.00E-02	1.07E+01	2.29E+00	9.70E-01	6.00E-01	33.98
North Core Sand Mixer &Core Machines	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2.80E-01	0.00E+00				0.28
South Core Sand Mixer&Core Machines	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2.60E-01	0.00E+00	_	_	_	0.26
New Core Sand Mixer & Core Machines	_	_	_	_	_	_	_	_	_	_					0.05	_	_	_	_	0.05
Propane/LPG/Butane combustion sources	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.00
Core Sand Reclaim																				0.00
Total	1.00E+00	1.79E+00	3.39E-01	4.74E-05	8.03E+01	4.93E+00	1.07E+01	5.17E-05	7.76E-02	9.00E-02	14.71	6.00E-02	2.90	1.57	0.65	10.74	2.29	0.97	0.60	134