



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: March 11, 2005
RE: Grede Foundries, Inc. / 065-16577-00007
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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



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**PART 70 OPERATING PERMIT
SIGNIFICANT PERMIT MODIFICATION
OFFICE OF AIR QUALITY**

**Grede Foundries, Inc. - New Castle
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.

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.: T065-6354-00007	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: July 24, 2002 Expiration Date: July 24, 2007

First Significant Permit Modification No.: T065-16605-00007, issued on January 2, 2003

Second Significant Permit Modification No.: T065-16577-00007	Pages Affected: Entire Permit
Issued by: Origin signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 11, 2005

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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, which is a secondary metal production plant.

Responsible Official:	David Roycraft
Source Address:	2700 East Plum Street, New Castle, Indiana 47362
Mailing Address:	2700 East Plum Street, New Castle, Indiana 47362
General Source Phone Number:	317-521-8000
SIC Code:	3321
County Location:	Henry
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 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, constructed in 1993, 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, constructed in 1993, 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.

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):

- (a) 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]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B

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

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

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (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: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

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

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

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) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) 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.

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in 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)(7)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204
- 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)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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

And

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

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
 - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

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

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

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

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

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

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant 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 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of 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)(A) and (B) are not federally enforceable.

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

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

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on August 1, 1996. The plan consists of:

- (a) Fugitive particulate matter emissions from the scrap yard shall be controlled by the following measures:
 - (i) Keep the area around the scrap piles clean.
 - (ii) Addition of water to paths on severe days (very dry), as required to limit dust generation.
 - (iii) Roll-up doors to scrap piles will be lowered as necessary to limit dust generation.

- (b) Fugitive particulate matter emissions from paved roads and parking lots shall be controlled by sweeping all paved roads at least once per month, weather permitting.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

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

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

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

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

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

All required notifications shall be submitted to:

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

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). 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 14-10-4, 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) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

C.10 **National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries [40 CFR Part 63, Subpart EEEEE]**

- (a) The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the iron foundry except when otherwise specified in 40 CFR 63 Subpart EEEEE. The Permittee must comply with these requirements on and after the effective date of 40 CFR 63 Subpart EEEEE.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.
- (c) The affected source, the iron foundry, is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, (40 CFR 63, Subpart EEEEE, and 326 IAC 20-1-1), effective the date the rule is published in the Federal Register. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart EEEEE on and after the date that is three years after the effective date of the rule, except as provided in paragraph (e), or accept and meet an enforceable HAP emissions limit below the major source threshold prior to three years after the effective date of the rule.
- (d) The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart EEEEE:
 - (1) Four (4) electric induction melting furnaces (ID Nos. Furnace #1, Furnace #2, Furnace #3, and Furnace #4);
 - (2) One (1) natural gas-fired scrap preheater;
 - (3) The pouring station associated with Mold Line #1;
 - (4) The pouring station associated with Mold Line #2;
- (e) The definitions of 40 CFR 63, Subpart EEEEE at 40 CFR 63.7765 are applicable to the affected source.
- (f) Pursuant to 40 CFR 63.7700(a) and 40 CFR 63.7683(b), the Permittee shall comply with the certification requirements in 40 CFR 63.7700(b) or prepare and implement a plan for the selection and inspection of scrap according to the requirements in 40 CFR 63.7700(c) no later than one year after the effective date of 40 CFR 63, Subpart EEEEE.

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

C.11 Performance Testing [326 IAC 3-6]

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

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

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

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 source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.12 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. 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.13 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 thirty (30) 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 thirty (30) days, the Permittee may extend the compliance schedule related to the equipment for an additional thirty (30) days provided the Permittee notifies:

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

in writing, prior to the end of the initial thirty (30) 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.14 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.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

C.16 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) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (c) 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.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

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

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP);

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

C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

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

The documents submitted pursuant to this condition do 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.20 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 emission of all pollutants listed in 326 IAC 2-6-4(a); and
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

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

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204
- (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) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

C.23 National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries –
Reporting Requirements [40 CFR 63 Subpart EEEEE]

- (a) To comply with Condition C.10, the Permittee shall submit:
- (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) no later than 120 days after the effective date of 40 CFR 63, Subpart EEEEE.
 - (2) A notification of Compliance Status containing the information required by 40 CFR 63.9(h) in accordance with 40 CFR 63.7750(e). The Notification of Compliance Status must be submitted:
 - (A) Before the close of business on the 30th calendar day following completion of the initial compliance demonstration for each initial compliance demonstration that does not include a performance test; and
 - (B) Before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in 40 CFR 63.10(d)(2) for each initial compliance demonstration that does include a performance test.
 - (3) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7750(d).
 - (4) If required to use a continuous monitoring system (CMS), notifications, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
 - (5) If required to conduct opacity or visible emissions observations, the anticipated date for conducting the opacity or visible emission observations specified in 40 CFR 63.6(h)(5) in accordance with the appropriate schedule specified in 40 CFR 63.9(f) as required by 40 CFR 63.7750(a).

- (b) The notifications required by paragraph (a) shall be submitted to:

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

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

The notifications require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (c) The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information (from the notification of compliance status) regarding which compliance option or options will be chosen in the Part 70 permit.

- (1) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart EEEEE, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.
- (2) The significant permit modification application shall be submitted no later than the date that the notification of compliance status, specified in 40 CFR 63.7750(e) and 40 CFR 63.9(h), is due.
- (3) The significant permit modification application shall be submitted to:

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

Stratospheric Ozone Protection

C.24 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (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 facility 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 Matter (PM) [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the electric induction furnaces #1 and #2 shall not exceed 12.85 pounds per hour, when each furnace is operating at a process weight rate of 11,000 pounds per hour.
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the electric induction furnaces #3 and #4 shall be limited to 12.05 pounds per hour, when each furnace is operating at a process weight rate of 10,000 pounds per hour.
- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the charge handling operation shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.
- (d) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the inoculation process shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.
- (e) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the scrap preheater shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.
- (f) For purposes of demonstrating compliance with the PM emission limits for electric induction furnaces #1, #2, #3, and #4, scrap preheater and the inoculation process exhausting through Collector #7, the allowable PM emission rate from Collector #7 shall be limited to 112.86 pounds per hour.

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

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

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the control device for the electric induction furnaces, the preheater, and the inoculation process.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on Collector #7 (stack S-7) when controlling the four (4) electric induction furnaces, the scrap preheater, and the 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 this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.4 Particulate Matter (PM)

The collection hood and dust collector (ID Collector #7) for PM control shall be in operation at all times when the inoculation process is in operation.

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

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust (ID S-7) for the four (4) electric induction furnaces, the scrap preheater, and the inoculation process shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector (ID Collector #7) used in conjunction with the four (4) electric induction furnaces, the scrap preheater, and the inoculation process, at least once per shift when the four (4) electric induction furnaces, the scrap preheater, and the inoculation process are in operation when venting to the atmosphere. When

for any one reading, the pressure drop across the dust collector is outside the normal range of 2.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.1.7 Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags controlling the four (4) electric induction furnaces, the scrap preheater, and the inoculation process when venting to the atmosphere. A dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of the stack exhaust (ID S-7) for the four (4) electric induction furnaces, the scrap preheater, and the inoculation process once per shift.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure during normal operation when

venting to the atmosphere.

- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (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, constructed in 1993, 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, constructed in 1993, 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 facility 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] [40 CFR 52.21]

- (a) Emissions of PM and PM-10 shall be limited as follows:
- (1) PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-1 shall not exceed 18.27 and 8.5 pounds per hour, respectively;

- (2) PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-10 shall not exceed 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 not exceed 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 not exceed 1.40 and 0.54 pounds per hour, respectively.

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, per CP 065-2749-00007) do not exceed the PSD major modification thresholds of 25 and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 do not apply.

- (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 not exceed 76,572 tons per twelve (12) consecutive month period.

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, per CP 065-2749-00007) from Mold Line #1 do not exceed the PSD major modification threshold of 40 tons per year. Therefore, compliance with these limits makes 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable.

D.2.2 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the operations of Mold Line #1 which exhaust to the dust collectors identified as Collectors #1 and #3, including metal pouring, metal cooling, mold shakeout, mold punch up, casting transfer, and sand handling, shall not exceed 52.49 pounds per hour when operating at a process weight rate of 225,500 pounds per hour, including metal and sand throughput.
- (b) The particulate matter emissions from the two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast) and the four (4) grinders of Mold Line #1, which exhaust to the dust collector identified as Collector #10, shall not exceed 19.5 pounds per hour when operating at a process weight rate of 20,500 pounds of ductile iron castings per hour. The total particulate matter emissions from the four (4) grinders in the casting finishing operations of Mold Line #2 (listed in section D.3) that also exhaust to Collector #10 shall not exceed 9.6 pounds per hour when operating at a process weight rate of 7,120 pounds of ductile iron castings per hour. Therefore, the total PM emissions from Collector #10 shall not exceed 29.1 pounds per hour.

The pounds per hour limitations were calculated with the one of the following equations:

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

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

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

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

D.2.3 Opacity [326 IAC 5-1]

- (a) Pursuant to CP 065-2749-00007, issued March 24, 1993, visible emissions from the Mold Line #1 sand handling and casting finishing operations shall be considered in compliance with 326 IAC 5-1 provided that fugitive particulate matter emissions, measured as opacity, shall not exceed twenty percent (20%) opacity. Point source emissions from controlled processes are limited to ten percent (10%) opacity.
- (b) Pursuant to CP 065-2749-00007, issued March 24, 1993, the following conditions shall apply:
 - (i) Good housekeeping and equipment maintenance procedures shall be implemented;
 - (ii) Emissions shall be minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves; and
 - (iii) Emissions shall not create a nuisance or a violation of 326 IAC 6-4.

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Based on a BACT analysis submitted on September 16, 1992, as part of the construction permit application for CP 065-2749-00007, 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 not exceed 76,572 tons per twelve (12) consecutive month period.

D.2.5 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 the Mold Line #1 operations.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM-10 testing on stack S-1 controlling the metal pouring, metal cooling, mold shakeout, mold punch up, casting transfer, and sand handling operations and stack S-10 controlling 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 this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.7 Opacity [326 IAC 5-1] [326 IAC 6-3] [326 IAC 6-5]

Pursuant to CP 065-2749-00007, issued March 24, 1993, compliance with the opacity limits in condition D.2.3(a) shall be determined according to U.S. EPA Method 9.

D.2.8 Particulate Matter (PM)

- (a) The two (2) dust collectors (ID Collector #1 and Collector #3) for PM control shall be in operation and control emissions from Mold Line #1 at all times that Mold Line #1 is in operation.

- (b) The one (1) dust collector (ID Collector #10) for PM control shall be in operation and control emissions from the casting finishing operations of Mold Line #1, which include the two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast) and the four (4) grinders, at all times that these processes are in operation.

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

D.2.9 Visible Emissions Notations

- (a) Visible emission notations of the Mold Line #1 stack exhausts (ID Nos. S-1 and S-10) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the three (3) dust collectors used in conjunction with Mold Line #1, at least once per shift when Mold Line #1 is in operation when venting to the atmosphere. When for any one reading, the pressure drop across either of the two (2) dust collectors identified as Collector #1 and Collector #3 is outside the normal range of 0.5 and 5.5 inches of water or a range established during the latest stack test, or the pressure drop across the dust collector identified as 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- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.2.11 Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags controlling Mold Line #1 when venting to the atmosphere. A dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

D.2.13 Record Keeping Requirements

- (a) To document compliance with conditions D.2.1 (d) and D.2.4(c), the Permittee shall maintain records of the monthly metal throughput to Mold Line #1.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the Mold Line #1 stack exhausts once per shift.
- (c) To document compliance with Condition D.2.10, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure during normal operation when venting to the atmosphere for each dust collector.
- (d) To document compliance with Condition D.2.11, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1(d) and D.2.4(c) 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

FACILITY OPERATION CONDITIONS

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

- (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 include 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 facility 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 Matter (PM) [326 IAC 6-3]

- (a) The allowable PM emission rate from the sand handling operations controlled by Collector #5 shall not exceed 52.01 pounds per hour when operating at a process weight rate of 107.5 tons per hour.
- (b) The allowable PM emission rate from the metal pouring and cooling operation of Mold Line #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput.
- (c) The allowable PM emission rate from the mold punch up and cooling operations, controlled by Collector #5 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput.
- (d) The allowable PM emission rate from the shakeout operations controlled by Collector #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput. These operations include the mold shakeout operation, one (1) casting cooling feeder conveyor, one (1) casting cooling transfer conveyor, and one (1) sand cooler and associated feed belt.
- (e) The allowable PM emission rate from the two shotblast operations controlled by Collector #6 shall not exceed 20.13 pounds per hour when operating at a combined process weight rate of 10.75 tons per hour.

- (f) The allowable PM emission rate from the three grinders controlled by Collector #6 shall not exceed 7.98 pounds per hour when operating at a combined process weight rate of 2.7 tons per hour.
- (g) The allowable PM emission rate from the four grinders controlled by Collector #10 shall not exceed 9.67 pounds per hour when operating at a combined process weight rate of 3.6 tons per hour.
- (h) In order to demonstrate compliance with the limits in subsections (a) and (c), the allowable PM emission rate from the Mold Line #2 operations, which exhaust to the dust collector identified as Collector #5, shall not exceed 104.99 pounds per hour.
- (i) In order to demonstrate compliance with the limits in subsections (e) and (f), the allowable PM emission rate from the Mold Line #2 operations, which exhaust to the dust collector identified as Collector #6, shall not exceed 28.11 pounds per hour.
- (j) In order to demonstrate compliance with the limits in subsection (g) and condition D.2.2(b), the allowable PM emission rate from the Mold Line #1 and #2 operations, which exhaust to the dust collector identified as Collector #10, shall not exceed 29.2 pounds per hour.

The pounds per hour limitations were calculated with one of the following equations:

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

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

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

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

D.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 the control devices for the Mold Line #2 operations.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing on Collector #2 controlling the mold shakeout operation, one (1) casting cooling feeder conveyor, one (1) casting cooling transfer conveyor, and one (1) sand cooler and associated feed belt, Collector #5 controlling the mold punch-up operation, the metal cooling area following the punch-up operation, and 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, and Collector #6 controlling the metal cooling area following the shakeout operation, the two (2) shot blast machines (ID Nos. #3 Shot Blast and #4 Shot Blast) and three (3) of the grinders in the casting finishing operation, and one (1) casting cooling transfer conveyor (Stack ID Nos. S-2, S-5, and S-6) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.3.4 Particulate Matter (PM)

The three (3) dust collectors (ID Collector #2, Collector #5, and Collector #6) shall be in operation and control emissions from the Mold Line #2 shakeout operation, one (1) casting cooling feeder conveyor, one (1) casting cooling transfer conveyor, one (1) sand cooler and associated feed belt, the sand handling systems and shotblasters #3 and #4 at all times that these units are in operation.

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

D.3.5 Visible Emissions Notations

- (a) Visible emission notations of the Mold Line #2 stack exhausts (ID Nos. S-2, S-5, S-6 and S-10) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the four (4) dust collectors used in conjunction with Mold Line #2, at least once per shift when Mold Line #2 is in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the four (4) dust collectors identified as Collector #2 and 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 and Collector #6 is outside the normal range of 2.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.3.7 Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags controlling Mold Line #2 when venting to the atmosphere. A dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

D.3.9 Record Keeping Requirements

- (a) To document compliance with Condition D.3.5, the Permittee shall maintain records of visible emission notations of the Mold Line #2 stack exhausts once per shift.
- (b) To document compliance with Condition D.3.6, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure during normal operation when venting to the atmosphere for each dust collector.
- (c) To document compliance with Condition D.3.7, the Permittee shall maintain records of the results of the inspections required under Condition D.3.7.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (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.

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

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

D.4.1 VOC Emission Limits [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

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 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 total 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.
- (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.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with these limits is also necessary to render the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.4.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) PM and PM10 emissions from the North Core Sand Mixer shall not exceed 1.40 and 0.54 pounds per hour, respectively;
- (b) PM and PM10 emissions from the South Core Sand Mixer shall not exceed 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 not exceed 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) and 40 CFR 52.21 shall not apply.

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

Pursuant to 326 IAC 6-3 (Process Operations), the allowable particulate matter (PM) emission rate from each of the three (3) core sand mixers (ID North Core Sand Mixer, South Core Sand Mixer, and New Core Sand Mixer) shall not exceed 17.87 pounds per hour when each is operating at a process weight rate of 18,000 pounds per hour.

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

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

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 Requirements

- (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 Requirements

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

FACILITY CONDITIONS

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

Insignificant Activity

- (a) 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 facility description box is descriptive information and does not constitute enforceable conditions.)

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

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

Pursuant to 326 IAC 6-3 (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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

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.: T065-6354-00007

**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
Indianapolis, Indiana 46204
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE 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.: T065-6354-00007

This form consists of 2 pages

Page 1 of 2

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: 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.: T065-6354-00007
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.

YEAR: _____

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

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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.: T065-6354-00007
 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						

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING 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.: T065-6354-00007

Months: _____ to _____ Year: _____

Page 1 of 2

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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

Source Background and Description

Source Name:	Grede Foundries, Inc. – New Castle
Source Location:	2700 East Plum Street, New Castle, Indiana 47362
County:	Henry
SIC Code:	3321
Operation Permit No.:	T065-6354-00007
Operation Permit Issuance Date:	August 7, 2002
Modification Permit No.:	065-16577-00007
Permit Reviewer:	James Farrell/MD

The Office of Air Quality (OAQ) has reviewed a petition for administrative review for Grede Foundries, Inc. relating to a stationary gray iron foundry.

History

Grede Foundries, Inc. (Grede) was issued a Part 70 operating permit (T065-6354-00007) on August 7, 2002. Grede petitioned for administrative review of the Part 70 operating permit on September 6, 2002. This petition was filed in the Office of Environmental Adjudication under Cause Number 02-A-J-2947. This permit modification shows the changes made to the Part 70 operating permit in order to settle issues raised by the petition for review. A significant permit modification has been drafted due to the fact that changes in the permit include revision of process weight rate calculations, record keeping of binder materials and various facility description changes.

The appeal requests follow with the deleted language in the permit appearing as ~~strikeouts~~, and the new or revised language appearing as **bold type** in the responses. In addition to any changes made to address appealed provisions, the permit has also been updated to reflect changes in the Table of Contents and page numbering of the entire permit.

Appeal Item 1:

The Petitioner objects to Condition A.2 (g), (h), (i) (Emission Unit Summary). The Petitioner believes the emission unit descriptions were modified from the proposed permit to include unnecessary details regarding the formulations of the cold box cores. The Petitioner believes the maximum percent resin contents and the DMEA usage rates should not be included in the unit description.

Response 1:

IDEM OAQ has reviewed the requested changes concerning the description of the cold box cores. Please note that Section A states: "The information describing the source contained in conditions A.2 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."

The application forms for the Part 70 permit requested the “maximum number of production units per hour.” This production capacity is the basis for determining applicability with the rules that establish emission limitations, permitting requirements and other requirements reflected in this permit. Although the capacity of the emission units is not an enforceable limit, any change in equipment including increased capacities may trigger new requirements or require prior approval from IDEM, OAQ. In order to identify additional equipment or modification of existing equipment, the equipment list must specify the quantity of a given type of equipment and their capacities. The Permittee has accepted permit limitations on capacity which allow for revisions to the description of the emission units. The maximum resin and sand mixture resin content descriptions are not enforceable permit limits. VOC emission limits are established throughout the permit that are enforceable limits. Therefore, IDEM, OAQ has revised the descriptive language for the emissions units listed in Condition A.2. The descriptive language changes will also be made to the Section D.4 Facility Description. The changes have been made as follows:

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:

- (g) one (1) core sand mixer (ID North Core Sand Mixer), constructed in 1993, with a ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 5.1 tons of sand per hour, ~~a maximum resin and sand mixture resin content of 1.0% for each machine, and a maximum DMEA usage rate of 4.8 pounds per ton of sand for each machine, both 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 ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 4.08 tons of sand per hour, ~~a maximum resin and sand mixture resin content of 1.0% for each machine, and a maximum DMEA usage rate of 4.8 pounds per ton of sand for each machine, 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 ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 1.77 tons of sand per hour, ~~a maximum resin and sand mixture resin content of 1.1%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand, and each of the remaining five (5) core machines with a maximum nominal throughput of 1.5 tons of sand per hour, with each of core machines CB-1 through CB-4 having a maximum resin and sand mixture resin content of 1.1%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand, and core machine CB-5 having a maximum resin and sand mixture resin content of 1.5%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand, all with a wet acid scrubber system for DMEA (a VOC) control, exhausting to the general ventilation.~~

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (g) one (1) core sand mixer (ID North Core Sand Mixer), constructed in 1993, with a ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 5.1 tons of sand per hour, ~~a maximum resin and sand mixture resin content of 1.0% for each machine, and a maximum DMEA usage rate of 4.8 pounds per ton of sand for each machine, both~~ 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 ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 4.08 tons of sand per hour, a ~~maximum resin and sand mixture resin content of 1.0% for each machine, and a maximum DMEA usage rate of 4.8 pounds per ton of sand for each machine, 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 ~~maximum~~ **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 ~~maximum~~ **nominal** throughput of 1.77 tons of sand per hour, ~~a maximum resin and sand mixture resin content of 1.1%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand,~~ and each of the remaining five (5) core machines with a ~~maximum~~ **nominal** throughput of 1.5 tons of sand per hour, ~~with each of core machines CB-1 through CB-4 having a maximum resin and sand mixture resin content of 1.1%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand, and core machine CB-5 having a maximum resin and sand mixture resin content of 1.5%, and a maximum DMEA usage rate of 4.8 pounds per ton of sand,~~ 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 facility description box is descriptive information and does not constitute enforceable conditions.)

Appeal Item 2:

The Petitioner objects to inclusion of Conditions C.13 (Ambient Monitoring of Particulate Matter Less than 10 Micrometers (PM₁₀)). The Petitioner states there were ambient monitoring requirements in the original permit, however, those requirements were for a 2-year minimum. The ambient monitoring was required as a result of an Agreed Order to the source in 1987 for violations of the fugitive dust rule. The Petitioner believes the continuation of this monitoring is an expense that is no longer warranted based on the results of the monitoring and should not be tied to the order regarding fugitive dust violations.

Response 2:

IDEM OAQ has reviewed this request for removal of ambient monitoring. IDEM OAQ issued a significant permit modification (T065-16605-00007) on January 2, 2003 granting Grede's request to remove the ambient monitoring requirement from their Part 70 operating permit. The significant permit modification shall satisfy the Petitioner's request in this petition for review and the ambient monitoring of Particulate Matter Less than 10 micrometers requirement has been removed upon issuance of the significant permit modification T065-16605-00007.

Appeal Item 3:

The Petitioner objects to Condition C.20 (a)(2) (Emission Statement). The Petitioner states the condition is vague as to the source's obligation to submit annual emission estimates of Hazardous Air Pollutants. The Petitioner states it is unclear whether or not this requirement obligates the source to submit an annual inventory of Hazardous Air Pollutants or only to report Hazardous Air Pollutants not otherwise reported as a VOC or Particulate.

Response 3:

IDEM OAQ has reviewed this request concerning emission statement language contained in condition C.20. As the condition is written, the requirement for an emission statement indicates estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) for purposes of Part 70 fee assessment. As part of the definition referenced in 326 IAC 2-7-1, a regulated pollutant includes nitrogen oxides or any volatile organic compounds, any pollutant in which a national ambient air quality standard has been promulgated, any pollutant that is subject to any standard promulgated under Section 111 of the CAA, any Class I or Class II substance subject to a standard promulgated under or established by Title VI of the CAA and any pollutant subject to a standard promulgated under Section 112 of the CAA.

There are a list of HAPs that are not considered either particulate matter (PM) or volatile organic compounds (VOCs). If the source would emit one or more of the following HAPs, those HAPs would need to be estimated for Part 70 fee assessments. The list includes:

Tetrachloroethylene (Perc) (CAS#127184)
Chlorine (CAS # 7182505)
Hydrochloric Acid (CAS #7647010)
Hydrofluoric Acid (CAS #7664393)
Methyl chloroform or 1, 1, 1- Trichloroethane (CAS # 71556)
Methylene Chloride or Dichloromethane (CAS # 75092)
Phosphine (CAS # 7803512)
Mercury and Mercury Compounds

There have been revisions made to the emission statement condition in the Part 70 permit. Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). The source also has the potential to emit greater than or equal to two hundred fifty (250) tons per year of particulate matter less than or equal to ten (ten) micrometers (PM10) and volatile organic compounds (VOCs), each, therefore, an emission statement covering the previous calendar year must be submitted by July 1 annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4. The revisions have been made to condition C.20 and are as follows:

C.20 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 annual emission statement **covering the previous calendar year.** ~~certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4.~~ The annual 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 ~~criteria~~ **all pollutants listed in from the source, in compliance with 326 IAC 2-6-4(a); and (Emission Reporting);**
- (2) Indicate estimated actual emissions of ~~other~~ 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 purposes of ~~Part 70~~ fee assessment.

~~(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:~~

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

- ~~(b)~~ The annual 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.

Appeal Item 4:

The Petitioner objects to Condition D.1.1 (Particulate Matter). The Petitioner states the condition includes individual particulate emissions limits for the various melting operations based on the process weight rule (326 IAC 6-3), as well as a collective limit for all of the sources controlled by collector #7. The Petitioner states that the scrap pre-heaters should have a separate particulate emission limit as well as be added to the collective limit found in Condition D.1.1(e).

Response 4:

IDEM, OAQ has reviewed the request concerning the Particulate Matter emission limitations established in Condition D.1.1. IDEM, OAQ has reviewed the calculations of the process weight rate limits for all facilities contained in Section D.1. The scrap pre-heater has been included because particulate matter is emitted from this process. A separate allowable PM emission rate has been calculated for the scrap preheater as well as the allowable PM emission rate from Collector #7. The changes have been made to condition D.1.1 and are as follows:

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the electric induction furnaces #1 and #2 shall not exceed 12.85 pounds per hour, when each furnace is operating at a process weight rate of 11,000 pounds per hour.
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the electric induction furnaces #3 and #4 shall be limited to 12.05 pounds per hour, when each furnace is operating at a process weight rate of 10,000 pounds per hour.
- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the charge handling operation shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.
- (d) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the inoculation process shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.

- (e) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the scrap preheater shall be limited to 31.53 pounds per hour, when operating at a process weight rate of 42,000 pounds per hour.
- (f) For purposes of demonstrating compliance with the PM emission limits for electric induction furnaces #1, #2, #3, and #4, **scrap preheater** and the inoculation process exhausting through Collector #7, the allowable PM emission rate from Collector #7 shall be limited to ~~84.33~~ **112.86** pounds per hour.

Appeal Item 5:

The Petitioner objects to Condition D.1.4 (Particulate Matter). The Petitioner believes the condition is vague as to what constitutes operation of the electric induction furnaces. The Petitioner states the condition requires that the baghouses be in operation whenever the electric induction furnaces or the inoculation processes are "in operation". If the baghouse is not operational, the melting operation would cease but the furnaces would still be needed to hold the metal until the baghouse is repaired. The Petitioner states that the baghouse should be required to operate to meet the emission limits for the electric induction furnaces or the scrap pre-heater.

Response 5:

IDEM, OAQ has reviewed the requested change concerning the Particulate Matter language listed in Condition D.1.4. Previous emission calculations have combined the emissions of all four electric induction furnaces. In determining the potential uncontrolled emissions from each furnace individually, the potential uncontrolled emissions fall below the process weight rate limits. Therefore, the operation of the collection hood and dust collector would not be required when all four electric induction furnaces are operating to comply with the emissions limitations listed in Condition D.1.1. The revisions have been made to condition D.1.4 and are as follows:

D.1.4 Particulate Matter (PM)

The collection hood and dust collector (ID Collector #7) for PM control shall be in operation at all times when the four (4) electric induction furnaces and the inoculation process are in operation.

Appeal Item 6:

The Petitioner objects to the Conditions D.1.7, D.2.11 and D.3.7 (Dust Collector Inspections). The Petitioner states the conditions concerning dust collector inspections are arbitrary and capricious, duplicative of other requirements and without authority. The Petitioner believes that the Preventive Maintenance Plan (PMP) is required for the emission units and the PMP has unilaterally established a specific preventive maintenance requirement that should appropriately be left to the PMP.

Response 6:

IDEM OAQ has reviewed the requested changes to the dust collector inspections language in conditions D.1.7, D.2.11 and D.3.7. The intent of the dust collector inspection language is to aid in demonstrating compliance with 326 IAC 6-3. The dust collector inspections can be carried out as part of the PMP. No changes have been made to conditions D.1.7, D.2.11 and D.3.7 as a result of this petition.

Appeal Item 7:

The Petitioner objects to the Conditions D.1.8, D.2.12 and D.3.8 (Broken or Failed Bag Detections). The Petitioner states the conditions concerning broken or failed bag detections are arbitrary and capricious, duplicative of other requirements and without authority. The Petitioner believes that the Emergency provisions of the permit provide a proper framework to address failed emission control equipment. The Petitioner states conditions D.1.8, D.2.12 and D.3.8 establish a separate violation without reference to an underlying applicable requirement.

Response 7:

IDEM, OAQ has reviewed the requested changes to the broken or failed bag detections language in conditions D.1.8, D.2.12 and D.3.8. Pursuant to 326 IAC 2-7-5(1)(F), each Part 70 permit is required to contain conditions which minimize excess emissions to the extent feasible, caused by events such as a bag failure. Some bag failures could be caused by an "emergency" as defined in condition B.12 for purposes of an affirmative defense against a violation of the specific permit condition. However, once the bag failure is observed, continuing to operate the equipment and venting uncontrolled particulate matter to the atmosphere, will likely not be considered an attempt by the permittee to take all reasonable steps to minimize levels of emissions that exceed an emission standard or other requirement in the permit. Additionally, not all bag failures are the result of an emergency. Some bag failures could be due to preventable factors such as the lack of proper maintenance. Therefore the IDEM, OAQ believes that the requirement to shutdown the affected compartments is a reasonable action to ensure compliance with the particulate matter limitations. The following changes in the broken or failed bag detections language were made for clarification purposes. To be current with IDEM, OAQ language "violation" has been changed to "deviation" and the condition has been modified to require the Permittee to notify OAQ when a broken bag will not be fixed within 10 days with an expected date that the failed units will be repaired or replaced. The following revisions have been made and will be incorporated in conditions D.1.8, D.2.12 and D.3.8 as follows:

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. ~~Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions).~~ Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a ~~violation~~ **deviation** of this permit. **If operations continue after a bag failure is observed and it will be ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the permittee shall promptly notify the IDEM OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of any response actions taken up to the time of the notification.**
- (b) For single compartment dust collectors, **if failure is indicated by a significant drop in the dust collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then** failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Appeal Item 8:

The Petitioner objects to the Conditions D.2.3 and D.2.7 (Opacity). The Petitioner states the conditions establish opacity limits for Mold Line #1 processes and operational standards which are arbitrary and capricious and which have no technical or regulatory basis and which are duplicative and inconsistent with other limitations in the permit. The Petitioner states the permit establishes separate conditions (D.2.1, D.2.2, C.2 and C.5) which include opacity limits, fugitive emission requirements and mass emission limits for particulate matter that are based on applicable requirements.

The Petitioner believes there is no basis in the permit to provide a link between the mass emission limits and the visible emission limits in Condition D.2.3. The visible emission limits are also inconsistent with the requirements of 326 IAC 5-1, which establish a visible emission limits of 40%.

Response 8:

IDEM, OAQ has reviewed the requested changes to the opacity language in conditions D.2.3 and D.2.7. Condition D.2.3 was established in CP065-2749-00007, issued in March 24, 1993, to determine compliance with 326 IAC 5-1, 326 IAC 6-3 and 326 IAC 6-5. Conditions D.2.1 and D.2.2 establish emission limits for Particulate Matter and Prevention of Significant Deterioration (PSD). Conditions C.2 and C.5 are applicable to the entire source and the conditions include the language "unless otherwise specified in the permit:". Therefore, the opacity limits and monitoring methods established in conditions D.2.3 and D.2.7 are the applicable opacity requirements for the Mold Line #1 sand handling and casting finishing operations. No changes will be made to conditions D.2.3 and D.2.7 as a result of this petition.

Appeal Item 9:

The Petitioner objects to the Conditions D.2.6 (Testing Requirements). The Petitioner states the condition requires PM and PM₁₀ testing for stacks S-1 and S-10. The Petitioner states the condition requires tests for PM₁₀ including filterable and condensibles. The Petitioner believes there is no reference test method for PM₁₀ condensibles. The Petitioner believes the requirement to include condensible testing on these stacks is contrary to guidance provided to the agency from EPA's Research Triangle Park.

Response 9:

IDEM, OAQ has reviewed the requested changes to the testing requirement language in condition D.2.6. U.S. EPA test methods have identified Method 202 as the applicable test method to determine particulate matter less than 10 microns (PM₁₀) condensible emissions. No changes will be made to conditions D.2.6 as a result of this petition.

Appeal Item 10:

The Petitioner objects to the Conditions D.3.1 (Particulate Matter). The Petitioner states the condition establishes inaccurate particulate emission limits for mold line #2. The Petitioner believes the emission limits for the various processes covered by this section should be expressed as individual limits for the separate processes and not a single limit for the entire line consistent with the requirements found in 326 IAC 6-3.

Response 10:

IDEM, OAQ has reviewed the request concerning the Particulate Matter emission limitations established in Condition D.3.1. IDEM OAQ has reviewed the calculations of the process weight rate limits for all facilities contained in Section D.3. The molding operation (Mold Line #2) has been treated as one process when each emission unit should be treated as a separate process. As a result, individual process weight rate limits have been calculated for each emission unit associated with Mold Line #2. The revised process weight rate limits have been added to condition D.3.1 and are as follows:

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

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the Mold Line #2 operations which exhaust to the dust collector identified as Collector #5 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 236,500 pounds per hour, including metal and sand throughput. These operations include the mold punch-up operation, the metal cooling area following the punch-up operation, and 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. **The allowable PM emission rate from the sand handling operations controlled by collector #5 shall not exceed 52.01 pounds per hour when operating at a process weight rate of 107.5 tons per hour.**
- (b) The allowable PM emission rate from the Mold Line #2 operations which exhaust to the dust collector identified as Collector #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 236,500 pounds per hour, including metal and sand throughput. These operations include the mold shakeout operation, one (1) casting cooling feeder conveyor, one (1) casting cooling transfer conveyor, and one (1) sand cooler and associated feed belt. **The allowable PM emission rate from the metal pouring and cooling operation of Mold Line #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput.**
- (c) The allowable PM emission rate from the Mold Line #2 operations which exhaust to the dust collector identified as Collector #6 shall not exceed 20.13 pounds per hour when operating at a process weight rate of 21,500 pounds of ductile iron castings per hour. These operations include the metal cooling area following the shakeout operation, the two (2) shot blast machines (ID Nos. #3 Shot Blast and #4 Shot Blast) and three (3) of the grinders in the casting finishing operation, and one (1) casting cooling transfer conveyor. **The allowable PM emission rate from the mold punch up and cooling operations, controlled by collector #5 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput.**
- (d) The allowable PM emission rate from the metal pouring operation of Mold Line #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 236,500 pounds per hour, including metal and sand throughput. **The allowable PM emission rate from the shakeout operations controlled by Collector #2 shall not exceed 52.98 pounds per hour when operating at a process weight rate of 118.25 tons per hour, including metal and sand throughput. These operations include the mold shakeout operation, one (1) casting cooling feeder conveyor, one (1) casting cooling transfer conveyor, and one (1) sand cooler and associated feed belt.**
- (e) The allowable PM emission rate from the metal cooling area following the metal pouring operation of Mold Line #2 shall be limited to 52.98 pounds per hour when operating at a process weight rate of 236,500 pounds per hour, including metal and sand throughput. **The allowable PM emission rate from the two shotblast operations controlled by Collector #6 shall not exceed 20.13 pounds per hour when operating at a combined process weight rate of 10.75 tons per hour.**
- (f) **The allowable PM emission rate from the three grinders controlled by Collector #6 shall not exceed 7.98 pounds per hour when operating at a combined process weight rate of 2.7 tons per hour.**
- (g) **The allowable PM emission rate from the four grinders controlled by Collector #10 shall not exceed 9.67 pounds per hour when operating at a combined process weight rate of 3.6 tons per hour.**

- (h) **In order to demonstrate compliance with the limits in subsections (a) and (c), the allowable PM emission rate from the Mold Line #2 operations, which exhaust to the dust collector identified as Collector #5 shall not exceed 104.99 pounds per hour.**
- (i) **In order to demonstrate compliance with the limits in subsections (e) and (f), the allowable PM emission rate from the Mold Line #2 operations, which exhaust to the dust collector identified as Collector #6, shall not exceed 28.11 pounds per hour.**
- (j) **In order to demonstrate compliance with the limits in subsection (g) and condition D.2.2(b), the allowable PM emission rate from the Mold Line #1 and #2 operations, which exhaust to the dust collector identified as Collector #10, shall not exceed 29.2 pounds per hour.**

Appeal Item 11:

The Petitioner objects to the Conditions D.4.6(b) (Record Keeping Requirements). The Petitioner states the condition requires the Permittee to maintain records of the VOC content of the binder resins used for the cold box core production process in order to demonstrate compliance with Condition D.4.1(e). The Petitioner believes this requirement is inappropriate since the VOC content of the binder material is not directly linked to the VOC emissions from the binder resins.

Response 11:

IDEM, OAQ has reviewed the requested changes to the Record Keeping Requirements language in condition D.4.6(b). IDEM, OAQ agrees that the intent of the condition is to document compliance with condition D.4.1(e) and the type of binder used will not exceed VOC emission limitations of 0.05 pounds per pound of resin. However, in the event the type of binder used would be changed, the VOC emissions would be affected and compliance with the VOC emission limitation could not be demonstrated. Therefore, IDEM, OAQ has revised the condition in order to document that there has been no change in the type of binder used on the core machines. The changes have been made to condition D.4.6(b) and are as follows:

D.4.6 Record Keeping Requirements

- (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 of ~~the VOC content of the binders used 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.

In addition to the modification of D.4.6(b), the petitioner requested the following changes related to the total resin and DMEA usage for core machines CB-1-CB-5 and the DISA core machine. This request does not change the allowable emissions from the core machines, therefore, the following modifications have been made to Section D.4 and the Quarterly Report for the Core Machines. See page 1 of 2 of appendix A for detailed calculations.

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

D.4.1 VOC Emission Limits [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

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 not exceed ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-1 and CB-2 shall not exceed ~~40,545~~ **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 ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-3 and CB-4 shall not exceed ~~40,545~~ **36,218** pounds of DMEA per 12 consecutive month period.
- (c) The **total** resin usage for core machine CB-5 shall not exceed ~~237,443~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machine CB-5 shall not exceed ~~37,943~~ **36,218** pounds of DMEA per 12 consecutive month period.
- (d) The **total** resin usage for the DISA core machine shall not exceed ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for the DISA core machine shall not exceed ~~40,545~~ **36,218** pounds of DMEA per 12 consecutive month period.
- (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.

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

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.: T065-6354-00007
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 ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-1 and CB-2 shall not exceed ~~40,545~~ **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 ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machines CB-3 and CB-4 shall not exceed ~~40,545~~ **36,218** pounds of DMEA per 12 consecutive month period.
- (c) The resin usage for core machine CB-5 shall not exceed ~~237,443~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for core machine CB-5 shall not exceed ~~37,943~~ **36,218** pounds of DMEA per 12 consecutive month period.
- (d) The resin usage for the DISA core machine shall not exceed ~~485,695~~ **271,636** pounds of resin per 12 consecutive month period. DMEA usage for the DISA core machine shall not exceed ~~40,545~~ **36,218** pounds of DMEA per 12 consecutive month period.

Appeal Item 12:

The Petitioner objects to the Conditions A.2 (f)(2) and (3) (Emission Units and Pollution control Equipment Summary). The Petitioner states the condition refers to operations exhausting through stacks S-11 and S-12. The Petitioner states that the operations do not exhaust through stacks but are exhausted through the general ventilation. Therefore, the Petitioner is requesting the removal of the mention of the stacks as well as Condition D.3.5 (a) Visible Emission Notations language.

Response 12:

IDEM, OAQ has reviewed the requested changes concerning Conditions A.2 (f)(2) and (3) (Emission Units and Pollution Control Equipment Summary). Please note that Section A states: "The information describing the source contained in conditions A.2 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."

IDEM, OAQ has also reviewed additional information regarding appeal item 12 related to the Mold Line #2 molding operation descriptions. The petitioner provided additional information that supports the fact that the emissions from the metal pouring and metal cooling operations from Mold Line #2 are exhausted to the atmosphere through the general ventilation system. The petitioner also provided requests for changes to be made to the facility descriptions in Section A.2 and D.3 in addition to revising the visible emission notations to remove the references for S-11 and S-12. The request included modifying the description of Mold Line #2 molding operation to combine and clarify the titles of the different operations to better reflect the actual operations of the source. The petitioner also requested that Condition A.2 and D.3 Facility Description (f)(6)(A) and (B) be separated and identified individually. IDEM, OAQ will make the requested changes based on this additional information. The changes to Section A.2, Emission Units and Pollution Control Equipment Summary, and Section D.3, Facility Description Box, are as follows:

D.3 Facility Description [326 IAC 2-7-5(15)]:

- (f) one (1) molding operation (ID No. Mold Line #2), constructed in 1968, consisting of the following:
- (1) one (1) sand **handling operation muller** (ID No. Line #2 **Sand Muller**) ~~and associated feed and discharge belts~~, with a maximum mold sand throughput of 107.5 tons per hour, ~~all~~ controlled by one (1) dust collector (~~ID No. C identified as collector #5~~), exhausting through ~~one (1) stack (ID No. S-5);~~ **The sand handling operations include the sand muller (ID Line #2 Muller), the return sand systems, 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 Pouring/**Cool**), with a maximum throughput of 10.75 tons per hour of ductile iron, exhausting ~~through one (1) stack (ID No. S-11)~~ **into the building;**
 - (3) one (1) ~~metal mold punchup/cooling~~ operation (ID No. Line #2 **Punchup/Cooling**), with a maximum throughput of 10.75 tons per hour of ductile iron, ~~with the cooling area following the metal pouring operation exhausting uncontrolled through one (1) stack (ID No. S-12), the cooling area following the punch-up operation controlled by one (1) dust collector (ID No. C identified as collector #5), exhausting through one (1) stack (ID No. S-5); and the cooling area following the shake out operation exhausting through general ventilation;~~
 - (4) ~~one (1) mold punch up operation, with a maximum throughput of 10.75 tons per hour of ductile iron and 107.5 tons per hour of sand, controlled by one (1) dust collector (ID No. Collector #5), exhausting through one (1) stack (ID No. S-5);~~
 - (5) **(4)** one (1) mold shakeout operation (ID No. Line #2 Shakeout) ~~and associated vibrator conveyor,~~ with a maximum throughput of 10.75 tons per hour of ductile iron ~~and 107.5 tons per hour of sand,~~ controlled by one (1) dust collector (~~ID No. C identified as collector #26~~) which exhausting through ~~one (1) stack (ID No. S-2);~~
 - (6) **(5)** ~~one (1) casting finishing operation, constructed in 1968, consisting of the following:~~
 - (A) ~~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) pulse jet dust (ID No. C collector #6), which exhausting through one (1) stack (ID No. S-6;~~

~~(B) seven (7) grinders, each with a maximum throughput of 0.89 tons per hour of ductile iron castings, with four (4) of the grinders controlled by one (1) pulse jet dust collector (ID No. Collector #10) which exhausts through one (1) stack (ID No. S-10), and (3) of the grinders controlled by one (1) pulse jet dust collector (ID No. Collector #6) which exhausts through one (1) stack (ID No. S-6);~~

- (6) Three (3) grinders, with a total nominal throughput of 2.7 tons per hour of ductile Iron castings, controlled by 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 dust collector #10, exhausting through stack S-10.**

D.3.5 Visible Emissions Notations

- (a) Visible emission notations of the Mold Line #2 stack exhausts (ID Nos. S-2, S-5, S-6, ~~and S-10, S-11, and S-12~~) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Additional Request

The petitioner submitted additional requests relating to Condition D.2.1 and D.2.4 during the review of this appeal resolution. The petitioner requested that the PM10 limits and VOC emissions listed in Condition D.2.1 be revised. The request for the revision of the PM10 limits is based on the results of stack tests conducted in 2003 on dust collectors #1/#3 and #10. The petitioner has requested the change because the PM10 emissions were higher on the collector #10 than the permit allows, but the emissions from collector #1/#3 were below the allowable emissions. The petitioner has proposed alternative limits for the PM10 emissions related to the processes to comply with the allowable emission limits of the permit. Upon further review of the stack test results the IDEM, OAQ has agreed with the proposed changes. See page 2 of 2 of appendix A for detailed calculations.

The revised VOC emission limit combines two emission limits that were included in the petitioner's Part 70 Operating Permit and there has been no increase in potential to emit. This revision has not changed the total allowable VOC emissions from the Mold Line #1 Pouring, Cooling and Shakeout operations. The modifications to D.2.1 and D.2.4 are as follows:

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) Emissions of PM and PM-10 shall be limited as follows:
 - (1) PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-1 shall not exceed 18.27 and **8.5** ~~40.42~~ pounds per hour, respectively;
 - (2) PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-10 shall not exceed 0.66 and **1.5** ~~0.46~~ pound per hour, respectively;
 - (3) PM and PM10 emissions from the North Core Sand Mixer, listed in section D.4, shall not exceed 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 not exceed 1.40 and 0.54 pounds per hour, respectively.

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, per CP 065-2749-00007) do not exceed the PSD major modification thresholds of 25 and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) do not apply.

- (b) VOC emissions from the Mold Line #1 Pouring, ~~and Cooling~~ **and Shakeout** operations shall not exceed **1.34** ~~0.14~~ pounds of VOC per ton of metal charged;
- ~~(c) VOC emissions from the Mold Line #1 Shakeout operation shall not exceed 1.2 pounds of VOC per ton of metal charged;~~
- (cd)** The throughput of metal to Mold Line #1 shall not exceed 76,572 tons per twelve (12) consecutive month period.

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, per CP 065-2749-00007) from Mold Line #1 do not exceed the PSD major modification threshold of 40 tons per year. Therefore, compliance with these limits makes 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable.

and

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Based on a BACT analysis submitted on September 16, 1992, as part of the construction permit application for CP 065-2749-00007, BACT for the #1 Mold Line Pouring and Shakeout operations shall be the following:

- (a) VOC emissions from the Mold Line #1 Pouring, ~~and Cooling~~ **and Shakeout** operations shall not exceed **1.34** ~~0.44~~ pounds of VOC per ton of metal charged;
- ~~(b) VOC emissions from the Mold Line #1 Shakeout operation shall not exceed 1.2 pounds of VOC per ton of metal charged;~~
- (be)** The throughput of metal to Mold Line #1 shall not exceed 76,572 tons per twelve (12) consecutive month period.

The petitioner also requested administrative revisions to Conditions D.1.6 and D.3.6-Parametric Monitoring, to reflect the proper operating ranges for differential pressure ranges of Dust collectors #5, #6 and #7. The modifications to D.1.6 and D.3.6 are as follows:

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector (ID Collector #7) used in conjunction with the four (4) electric induction furnaces, the scrap preheater, and the inoculation process, at least once per shift when the four (4) electric induction furnaces, the scrap preheater, and the inoculation process are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the dust collector is outside the normal range of ~~42.0 and 89.0~~ **42.0 and 89.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the four (4) dust collectors used in conjunction with Mold Line #2, at least once per shift when Mold Line #2 is in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the four (4) dust collectors identified as Collector #2; **and 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 and; **Collector #6 is outside the normal range of 2.0 and 9.0 inches of water or a range established during the latest stack test**; ~~and 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- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

- (a) T065-6354-00007, issued on August 7, 2002; and
- (b) T065-16605-00007, issued on January 2, 2003.

All conditions from previous approvals were incorporated into this Significant Permit Modification.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Modification as the resolution of the appeals be approved.

Emission Calculations

See Appendix A of this document for emissions calculations (2 pages).

Potential To Emit

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

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250
SO ₂	less than 100
VOC	greater than 250
CO	less than 100
NO _x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Chromium	less than 10
Manganese	greater than 10
Cobalt	less than 10
Nickel	less than 10
Arsenic	less than 10
Cadmium	less than 10
Selenium	less than 10
Lead	greater than 10
Naphthalene	less than 10
TOTAL	greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10 and VOC are 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 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	69
SO ₂	1
VOC	72
CO	4
NO _x	5
HAP (specify)	not reported

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Electric Induction Furnaces #1 - #4	0.81	0.77	0.0	0.0	0.0	0.0	0.06
Charge Handling	56.98	34.88	0.0	0.0	0.0	0.0	1.78
Inoculation	78.66	63.46	0.0	0.46	0.0	0.0	2.46
Scrap Preheater	0.003	0.003	0.03	0.24	3.62	4.31	<0.1
#1 Mold Line Pouring Cooling & Shakeout	5.88	3.48	0.77	51.30	0.0	0.38	0.10
#1 Mold Line Sand Handling	32.30	4.80	0.0	0.0	0.0	0.0	0.0
#2 Mold Line Pouring & Cooling (uncontrolled)	204.18	103.38	0.94	6.6	0.0	0.47	6.38
#2 Mold Line Cooling (controlled)	4.00	1.90	0.0	0.0	0.0	0.0	0.0
#2 Mold Line Shakeout	3.10	2.20	0.0	56.5	0.0	0.0	0.10
#2 Mold Line Sand Handling	33.90	5.10	0.0	0.0	0.0	0.0	0.0
Casting Grinding	0.48	0.47	0.0	0.0	0.0	0.0	0.47
Shotblasters #1 - #4	3.74	1.27	0.0	0.0	0.0	0.0	0.94
Sand Mixers and Core Machines	8.52	1.29	0.0	395.05	0.0	0.0	0.66
Core Sand Reclaim	0.47	0.07	0.0	0.0	0.0	0.0	0.0
Total Emissions	433.02	223.07	1.74	510.15	3.62	5.16	13.03

All emissions represent emissions after controls including all applicable metal throughput limits. However, the VOC emissions from the sand mixers and core machines represent the maximum allowable VOC emissions before controls. There is a scrubber to control DMEA (a VOC) emissions from the core machines, however, the scrubber is not required for compliance with the applicable VOC emission limits.

County Attainment Status

The source is located in Henry County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purpose of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Henry County has been designated as attainment or unclassifiable for ozone standards. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Henry County has been classified as attainment or unclassifiable in Indiana for all other regulated 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 for the source section.
- (c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

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.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (a) This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs)(40 CFR Part 63) for Iron and Steel Foundries.
 - (a) 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 station associated with Mold Line #2 are subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, 40 CFR 63, Subpart EEEEE. The above identified units comprise one existing affected source, as defined by 40 CFR 63.7506(b), because they meet the criteria in the definition in 40 CFR 63.7575 for the affected source. The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the affective date of 40 CFR 63, Subpart EEEEE, except when otherwise specified in 40 CFR 63 Subpart EEEEE. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/ifoundry/ifoundrypg.html>.

This rule has a future compliance date; therefore, the specific details of the rule and how the Permittee will demonstrate compliance for the affected source are not provided in the permit. The Permittee shall submit an application for a significant permit modification nine months prior to the compliance date for the MACT that will specify the option or options for the emission limitations and standards and methods for determining compliance chosen by the Permittee. At that time, IDEM, OAQ will include the specific details of the rule and how the Permittee will demonstrate compliance. In addition, pursuant to 40 CFR 63, Subpart EEEEE, the Permittee shall submit:

- (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) no later than 120 days after the effective date of 40 CFR 63, Subpart EEEEE.
 - (2) A Notification of Compliance Status containing the information required by 40 CFR 63.9(h) in accordance with 40 CFR 63.7750(e). The Notification of Compliance Status must be submitted:
 - (A) Before the close of business on the 30th calendar day following completion of the initial compliance demonstration for each initial compliance demonstration that does not include a performance test; and
 - (B) Before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in 40 CFR 63.10(d)(2) for each initial compliance demonstration that does include a performance test.
 - (3) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7750(d).
 - (4) If required to use a continuous monitoring system (CMS), notifications, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
 - (5) If required to conduct opacity or visible emissions observations, the anticipated date for conducting the opacity or visible emissions observations specified in 40 CFR 63.6(h)(5) in accordance with the appropriate schedule specified in 40 CFR 63.9(f) as required by 40 CFR 63.7750(a)
- (b) Also, the source is subject to the following:
- (1) Pursuant to 40 CFR 63.7700(a) and 40 CFR 63.7683(b), the Permittee shall comply with the certification requirements in 40 CFR 63.7700(b) or prepare and implement a plan for the selection and inspection of scrap according to the requirements in 40 CFR 63.7700(c) no later than one year after the effective date of 40 CFR 63, Subpart EEEEE.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on August 1, 1996. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 2-2 (Prevention of Significant Deterioration)

This existing secondary metal production source, which is one of the 28 listed source categories, is a major PSD source. However, the source is not subject to the requirements of this rule based on the following information:

- (a) The four (4) electric induction furnaces, the charge handling operation, the inoculation process, Mold Line #2, including two (2) shot blast machines (ID Nos. #3 Shot Blast and #4 Shot Blast) and seven (7) grinders, and four (4) core machines (ID 103, 106, N-321, and S-321 Core Machines) were each constructed prior to the rule applicability date of August 7, 1977, therefore, they are not subject to the requirements of this rule. However, the total potential PM emissions from these emission units are greater than 100 tons per year, therefore, the source was considered a major PSD source with respect to the subsequent modifications to the source.
- (b) VOC emissions from core machines CB-1 and CB-2, both constructed in 1992, shall be limited to less than 25 tons per year as follows:
 - (1) The total resin usage for core machines CB-1 and CB-2 shall not exceed 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.
 - (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.

Note: VOC emissions are limited to less than 25 tons per year to also render the requirements of 326 IAC 8-1-6 not applicable. See below for detailed discussion of this rule.

- (c) Mold Line #1 (including two (2) shot blast machines (ID Nos. #1 Shot Blast and #2 Shot Blast) and four (4) grinders) and two (2) of the sand mixers (ID South Core Sand Mixer and North Core Sand Mixer), all installed in 1993, are not subject to this rule. When Mold Line #1 was installed in 1993, it was a replacement for an older mold line and was permitted under CP-065-2749-00007. The existing source was a major PSD source based on the potential emissions from the existing facilities. The net emissions increase resulting from the replacement of the older mold line with the new Mold Line #1, including PM emission control on Mold Line #1, a metal throughput limit on Mold Line #1 to limit the increase in VOC emissions to less than 40 tons per year, and controlled PM emissions from the two (2) sand mixers, was less than PSD major modification thresholds for each regulated pollutant, therefore, the requirements of 326 IAC 2-2 do not apply. PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-1 shall not exceed 18.27 and 8.5 pounds per hour, respectively. PM and PM10 emissions from the Mold Line #1 operations that exhaust through stack S-10 shall not exceed 0.66 and 1.5 pound per hour, respectively. PM and PM10 emissions from the North Core Sand Mixer shall not exceed 1.40 and 0.54 pounds per hour, respectively. PM and PM10 emissions from the South Core Sand Mixer shall not exceed 1.40 and 0.54 pounds per hour, respectively. These limits will insure that PM and PM10 emissions (including the contemporaneous decrease in emissions from the replacement of the older mold line) do not exceed the major modification thresholds. The dust collectors controlling PM emissions from the #1 Mold Line and the two (2) bin vents controlling emissions from the two (2) sand mixers shall be in operation at all times that the mold line and sand mixers are in operation to comply with this limit. Total VOC emissions from the Mold Line #1 Pouring and Shakeout operations shall not exceed 51.3 tons per year. The throughput of metal to Mold Line #1 shall not exceed 76,572 tons per twelve (12) consecutive month period. This metal throughput limit and maximum VOC emission rates for the Mold Line #1 Pouring and Shakeout operations of 1.34 pounds of VOC per ton of metal charged, respectively (based on U.S. EPA's FIRE data system, version 6.23), shall be used to demonstrate compliance with this limit. This limit will insure 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.

VOC emissions from the core machine identified as Disa, also constructed in 1993, shall be limited to less than 25 tons per year as follows:

- (1) The resin usage for the Disa core machine shall not exceed 271,636 pounds of resin per twelve (12) consecutive month period. DMEA usage for the Disa core machine shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period.
- (2) The VOC emissions (not including DMEA) from the Disa core machine shall not exceed 0.05 pound per pound of resin.

Note: VOC emissions are limited to less than 25 tons per year to also render the requirements of 326 IAC 8-1-6 not applicable. See below for detailed discussion of this rule.

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

Note: VOC emissions are limited to less than 25 tons per year to also render the requirements of 326 IAC 8-1-6 not applicable. See below for detailed discussion of this rule.

- (e) The one (1) sand mixer (ID New Core Sand Mixer), installed in 1995, is not subject to this rule because controlled PM and PM10 emissions are less than the PSD major modification thresholds. PM and PM10 emissions from the one (1) sand mixer (ID New Core Sand Mixer) shall not exceed 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.

- (f) VOC emissions from core machine CB-5, constructed in 2000, shall be limited to less than 25 tons per year as follows:

- (1) The resin usage for core machine CB-5 shall not exceed 271,636 pounds of resin per twelve (12) consecutive month period. DMEA usage for core machine CB-5 shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period.
- (2) The VOC emissions (not including DMEA) from core machine CB-5 shall not exceed 0.05 pound per pound of resin.

Note: VOC emissions are limited to less than 25 tons per year to also render the requirements of 326 IAC 8-1-6 not applicable. See below for detailed discussion of this rule.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM-10 and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2 (1), (2), or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. The fugitive dust control plan for this source includes the following:

- (a) Fugitive particulate matter emissions from the scrap yard shall be controlled by the following measures:
 - a. Keep the area around the scrap piles clean.
 - (ii) Addition of water to paths on severe days (very dry), as required to limit dust generation.
 - (iii) Roll-up doors to scrap piles will be lowered as necessary to limit dust generation.
- (b) Fugitive particulate matter emissions from paved roads and parking lots shall be controlled by sweeping all paved roads at least once per month, weather permitting.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

326 IAC 2-4.1-1 applies to new or reconstructed facilities with potential emissions of any single HAP equal or greater than ten (10) tons per year and potential emissions of a combination of HAPs greater than or equal to twenty-five (25) tons per year. The rule does not apply to facilities that have been constructed before the effective date of this rule (July 27, 1997). 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 (Process Operations)

The particulate matter (PM) limits are listed in the Technical Support Document of the Part 70 operating permit T065-6354-00007.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This rule applies to new facilities, constructed after January 1, 1980, which have potential emissions of 25 tons or more per year of VOC.

- (a) The #2 Mold Line pouring operation is not subject to the requirements of 326 IAC 8-1-6 because it was constructed prior to January 1, 1980. Potential VOC emissions from the inoculation process are less than 25 tons per year, and the process was constructed prior to January 1, 1980, therefore, this process is not subject to the requirements of 326 IAC 8-1-6.

(b) As part of the construction permit application for CP 065-2749-00007, a BACT analysis for the control of VOC emissions from the #1 Mold Line pouring and shakeout operations was included with the construction permit application for the installation of the #1 Mold Line, which was submitted on September 16, 1992. Potential VOC emissions on which the analysis was based were 44.46 tons per year from the #1 Mold Line shakeout operation and 5.2 tons per year from the #1 Mold Line pouring operation. Since potential VOC emissions, including the applicable metal throughput limit to render the requirements of 326 IAC 2-2 (PSD) not applicable, from the Mold Line #1 pouring and shakeout operations are only slightly higher (1.6 tons/yr higher) than the potential VOC emissions on which the analysis was based, the BACT analysis and determination is still valid. Therefore, no VOC emission control and 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 not exceed 76,572 tons per twelve (12) consecutive month period.

(c) Potential VOC emissions from each of the ten (10) core machines are greater than 25 tons per year. Four (4) of the core machines (ID 106, 103, N-321, and S-321 Core Machines) were installed prior to January 1, 1980, therefore these four (4) core machines are not subject to this rule.

In order to render the requirements of 326 IAC 8-1-6 not applicable to the six (6) core machines identified as CB-1, CB-2, CB-3, CB-4, CB-5, and Disa, the following limits shall apply:

- (1) VOC emissions from core machines CB-1 and CB-2, both constructed in 1992, 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 not exceed 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.
 - (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 core machines CB-3 and CB-4, both constructed in 1995, shall be limited to less than 25 tons per year as follows:
 - (A) The total resin usage for core machines CB-3 and CB-4 shall not exceed 271,636 pounds of resin per twelve (12) consecutive month period. Total DMEA usage for core machines CB-3 and CB-4 shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period.
 - (B) The VOC emissions (not including DMEA) from core machines CB-3 and CB-4 shall not exceed 0.05 pound per pound of resin.
- (3) VOC emissions from the core machine identified as Disa, also constructed in 1993, shall be limited to less than 25 tons per year as follows:
 - (A) The resin usage for the Disa core machine shall not exceed 271,636 pounds of resin per twelve (12) consecutive month period. DMEA usage for the Disa core machine shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period.

- (B) The VOC emissions (not including DMEA) from the Disa core machine shall not exceed 0.05 pound per pound of resin.
- (4) VOC emissions from core machine CB-5, constructed in 2000, shall be limited to less than 25 tons per year as follows:
 - (A) The resin usage for core machine CB-5 shall not exceed 271,633 pounds of resin per twelve (12) consecutive month period. DMEA usage for core machine CB-5 shall not exceed 36,218 pounds of DMEA per twelve (12) consecutive month period.
 - (B) The VOC emissions (not including DMEA) from core machine CB-5 shall not exceed 0.05 pound per pound of resin.

Testing Requirements

There are no changes in the testing requirements as listed in the Part 70 operating permit T065-6354-00007.

Compliance Requirements

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

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

There are no changes in the applicable compliance monitoring requirements as listed in the Part 70 operating permit T065-6354-00007.

Conclusion

This permit modification shall be subject to the conditions of the attached significant permit modification 065-16577-00007.

Company Name: Grede Foundries, Inc. - New Castle Foundry
Plant Location: 2700 East Plum Street, New Castle, Indiana 47362
County: Henry
Title V #: T065-6354
Plt. ID #: 065-00007
SSM #: T065-16577

Phenolic Urethane Cold Box Core Making

Machine	Date of Construction	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max DMEA Usage (lb DMEA/ton cores)	Potential VOC Emissions from resin evap (tons/yr)	Potential DMEA Emissions from DMEA usage (tons/yr)
CB-1	1992	1.5	1.2%	1.2	3.2	7.88	21.02
CB-2	1992	1.5	1.2%	1.2	3.2	7.88	21.02
CB-3	1995	1.5	1.2%	1.2	3.2	7.88	21.02
CB-4	1995	1.5	1.2%	1.2	3.2	7.88	21.02
CB-5	2000	1.5	1.2%	1.2	3.2	7.88	21.02
Disa	1993	1.77	1.2%	1.2	3.2	9.30	24.81
103	1972	5.1	1.2%	1.2	3.2	26.81	71.48
106	1974	5.1	1.2%	1.2	3.2	26.81	71.48
N-321	1976	4.08	1.2%	1.2	3.2	21.44	57.19
S-321	1976	4.08	1.2%	1.2	3.2	21.44	57.19
Total						145.22	387.26

Limits Necessary to render 326 IAC 8-1-6 (BACT) and/or 326 IAC 2-2 (PSD) not applicable:

Core Machines	VOC limit (tons/yr)	VOC EF for resin evaporation (lb/ton cores)	VOC EF for resin evaporation (lb VOC/lb resin)	DMEA EF (lb/ton cores)	core production (tons cores/yr)	DMEA usage limit (lbs/yr)	resin usage limit (lbs/yr)
CB-1							
CB-2	24.9	1.2	0.05	3.2	11,318	36,218	271,636
CB-3							
CB-4	24.9	1.2	0.05	3.2	11,318	36,218	271,636
CB-5	24.9	1.2	0.05	3.2	11,318	36,218	271,636
Disa	24.9	1.2	0.05	3.2	11,318	36,218	271,636
103	98.29	1.2	0.05	3.2	44,676	N/A	N/A
106	39.9	1.2	0.05	3.2	18,136	N/A	N/A
N-321	78.63	1.2	0.05	3.2	35,741	N/A	N/A
S-321	78.63	1.2	0.05	3.2	35,741	N/A	N/A
Total	395.05				179,567		

Core Machines	Controlled DMEA Emissions (tons/yr)	Limited VOC Emissions from Resin (tons/yr)
CB-1		
CB-2	0.36	6.79
CB-3		
CB-4	0.36	6.79
CB-5	0.36	6.79
Disa	0.36	6.79
103	1.43	26.81
106	1.43	26.81
N-321	1.14	21.44
S-321	1.14	21.44
Total	6.60	123.66

Total VOC Emissions after control (tons/yr): 130.26

Instructions:

Note: The maximum DMEA usage should reflect the highest DMEA usage ever used for the worst case core ever produced by the machine.

Note: The maximum resin usage should reflect the highest resin usage ever used for the worst case core ever produced by the machine.

Appendix A: Grey Iron Foundry Operations

Company Name: Grede New Castle, Inc.
 Address City Zip: 2700 East Plum Street, New Castle, Indiana 47362
 Operating Permit No.: T065-6354-00007
 Significant Source Modification No.: T065-16577-00007
 Reviewer: James Farrell
 Date: 8/15/04

PM10 Emission Limits for the Mold Line #1 operations

Emission Source	PM and PM10 Limits from T065-6354				Revised PM10 Limits in T065-16577			
	PM Lbs/hr	PM10 Lbs/hr	PM tons/yr	PM10 tons/yr	PM Lbs/hr	PM10 Lbs/hr	PM tons/yr	PM10 tons/yr
For operations that exhaust through stack S-1(1)	18.27	10.12	80.02	44.33	18.27	8.5	80.02	37.23
For operations that exhaust through stack S-10(2)	0.66	0.16	2.89	0.7	0.66	1.5	2.89	6.57
Emission Totals in Tons/year			82.91	45.03			82.91	43.80

***Methodology**

(Limit) Lbs/hr * 8760 hr/yr * tn/2000lb = maximum allowable emissions in tons/yr

- (1)- Units exhausting through stack S-1 are controlled by two (2) dust collectors identified as Collector #1 and Collector #3.
 (2)- Units exhausting through stack S-10 are controlled by one (1) pulse jet dust collector #10.