



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: December 4, 2007
RE: Akron Foundry, Inc. / 049-18819-00001
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Akron Foundry, Inc.
502 Main Street
Akron, Indiana 46910**

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

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

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

Operation Permit No.: T 049-18819-00001	
Issued by:	Issuance Date: December 4, 2007
<i>Original signed by</i> Matt Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Expiration Date: December 4, 2012

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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 grey and ductile iron foundry.

Source Address:	502 Main Street, Akron, Indiana 46910
Mailing Address:	502 Main Street, Akron, Indiana 46910
General Source Phone Number:	574 - 893 - 4548
SIC Code:	3321
County Location:	Fulton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) One (1) scrap and charge handling operation, identified as H, installed in 2000, exhausting inside the building, capacity: 6.00 tons of iron per hour.
- (b) Two (2) electric induction furnaces, identified as FCE A and FCE B, both installed in 1997, exhausting through Vents V8 and V9, capacity: 3.0 tons of metal per hour, each.
- (c) One (1) magnesium treatment system, identified as Mag, constructed prior to 1979, exhausting through Vents V8 and V9, capacity: 6.00 tons of metal per hour.
- (d) One (1) pouring and cooling operation, identified as Pour and Cool, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (e) One (1) sand handling operation, identified as E-3, installed in 2000, consisting of one (1) Carrier auto vibrator shakeout, one (1) combination return sand storage bin with rotary screen, one (1) muller, one (1) bucket elevator and one (1) conveyor, all equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour.
- (f) One (1) shakeout operation, identified as Shakeout, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (g) One (1) manual rotolift machine, identified as E-4, installed in 1986, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.

- (h) One (1) automatic molding machine, BP 2620, identified as E-4, installed in 2000, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.
- (i) Seven (7) manual molding machines, identified as C, consisting of one (1) rotolift, installed in 1984, and six (6) portable floor squeezers, installed between 1950 and 1975, exhausting through Stack S-3, capacity: 10.66 tons of sand per hour, each and 6.0 tons of metal per hour total.
- (j) One (1) core making operation, identified as F, installed in 1970, consisting of two (2) manual shell machines, exhausting inside the building, capacity: 100 pounds of sand per hour each and 6.00 tons of metal per hour total.
- (k) One (1) natural gas fired oil-sand core oven, identified as F, rated at 0.100 million British thermal units per hour, installed in 2001, exhausting through Stack S-2, capacity: 96 pounds of sand, core oil, water and binders or sand, shell resin, catalyst and water per hour, total.
- (l) One (1) grinding and finishing operation, identified as D, consisting of six (6) stationary grinders, three (3) installed in 1965, one (1) installed in 1970 and two (2) installed in 1983, capacity: 6.00 tons of metal per hour total, one (1) shot-blaster, installed in 1985, capacity: 6.00 tons of metal per hour, one (1) rotary tumbler, installed in 1967, capacity: 6.00 tons of metal per hour and one (1) shared baghouse, identified as SBH, exhausting through Stack S-2.

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 does not currently have any insignificant activities, as defined in 326 IAC 2-7-1 (21) that have applicable requirements.

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T 049-18819-00001, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-3-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

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

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

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

and

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

Northern Regional Office phone: 574-245-4870; fax: 574-245-4877

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

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

and

Northern Regional Office
220 W. Colfax Avenue, Suite 200
South Bend, Indiana 46601-1634

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting 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.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

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

OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T 049-18819-00001 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

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

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

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

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

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

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

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

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

- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

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

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

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

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

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

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

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

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

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

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

and

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

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

copy of this permit; and

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]

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

The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

A modification, construction, or reconstruction is governed by the requirements of 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] [IC 13-30-3-1] [IC 13-17-3-2]

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

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

- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

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

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

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

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

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

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

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least seventy-five hundredths (0.75) cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.8 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling)

Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

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

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

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

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

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

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

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

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

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that

retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

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

- a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

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

The statement must be submitted to:

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

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

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

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

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

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

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

shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Scrap/Charge Handling and Induction Furnaces

- (a) One (1) scrap and charge handling operation, identified as H, installed in 2000, exhausting inside the building, capacity: 6.00 tons of iron per hour.
- (b) Two (2) electric induction furnaces, identified as FCE A and FCE B, both installed in 1997, exhausting through Vents V8 and V9, capacity: 3.0 tons of metal per hour, each.
- (c) One (1) magnesium treatment system, identified as Mag, constructed prior to 1979, exhausting through Vents V8 and V9, capacity: 6.00 tons of metal per hour.

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

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

D.1.1 PM and PM₁₀ PSD Minor Limits [326 IAC 2-2]

- (a) Pursuant to SSM 049-11484-00001, issued on January 14, 2000, and revised by T 049-18819-00001, the total input of metal to the two (2) electric induction furnaces, identified as FCE A and FCE B, shall be less than 20,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The PM emissions from the scrap and charge handling operation, identified as H, shall not exceed 0.60 pounds per ton of metal charged.
- (c) The PM₁₀ emissions from the scrap and charge handling operation, identified as H, shall not exceed 0.36 pounds per ton of metal charged.
- (d) The PM emissions from the two (2) electric induction furnaces, identified as FCE A and FCE B and the magnesium treatment system, identified as Mag, all exhausted through Vents V8 and V9 shall not exceed 2.70 pounds per ton of metal.
- (e) The PM₁₀ emissions from the two (2) electric induction furnaces, identified as FCE A and FCE B and the magnesium treatment system, identified as Mag, all exhausted through Vents V8 and V9 shall not exceed 2.66 pounds per ton of metal.

Compliance with these limitations and Conditions D.2.1 and D.3.1 combined with emissions from other emission units at the source shall limit the PM and PM₁₀ emissions from the entire source to less than one hundred (100) tons per year each, and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the total particulate emission rate from the Vents V8 and V9 associated with the two (2) electric induction furnaces, identified as FCE A and FCE B and the magnesium treatment system, identified as Mag, shall not exceed 21.7 pounds per hour when operating at a total process weight rate of 12.0 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the total particulate emission rate from the:

- (1) Scrap and charge handling operation, identified as H, shall not exceed 13.6 pounds per hour when operating at a process weight rate of 6.0 tons per hour.
 - (2) Two (2) electric induction furnaces, identified as FCE A and FCE B, shall not exceed 8.56 pounds per hour, each, when operating at a process weight rate of 3.0 tons per hour, each.
 - (3) Magnesium treatment system, identified as Mag, shall not exceed 13.6 pounds per hour when operating at a process weight rate of 6.0 tons per hour.
- (c) The pounds per hour limitations in (a) and (b) were calculated with the following equation:
- Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

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

D.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the total metal melted in the two (2) electric induction furnaces on a monthly basis.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Emission Units Exhausted Through Stack S-3

- (d) One (1) pouring and cooling operation, identified as Pour and Cool, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (e) One (1) sand handling operation, identified as E-3, installed in 2000, consisting of one (1) Carrier auto vibrator shakeout, one (1) combination return sand storage bin with rotary screen, one (1) muller, one (1) bucket elevator and one (1) conveyor, all equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour.
- (f) One (1) shakeout operation, identified as Shakeout, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (g) One (1) manual rotolift machine, identified as E-4, installed in 1986, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.
- (h) One (1) automatic molding machine, BP 2620, identified as E-4, installed in 2000, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.
- (i) Seven (7) manual molding machines, identified as C, consisting of one (1) rotolift, installed in 1984, and six (6) portable floor squeezers, installed between 1950 and 1975, exhausting through Stack S-3, capacity: 10.66 tons of sand per hour, each and 6.0 tons of metal per hour total.

(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 PM and PM₁₀ PSD Minor Limits [326 IAC 2-2]

- (a) Pursuant to SSM 049-11484-00001, issued on January 14, 2000, and revised by T 049-18819-00001, the PM emissions from the pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, all exhausted through Stack S-3, shall be less than a total of 10.6 pounds per hour.
- (b) Pursuant to SSM 049-11484-00001, issued on January 14, 2000, and revised by T 049-18819-00001, the PM₁₀ emissions from the pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, all exhausted through Stack S-3, shall be less than a total of 12.7 pounds per hour.

Compliance with these limitations and Conditions D.1.1 and D.3.1 combined with emissions from other emission units at the source shall limit the PM and PM₁₀ emissions from the entire source to less than one hundred (100) tons per year each, and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.2.2 CO PSD Minor Limit [326 IAC 2-2]

The CO emissions from Stack S-3 shall not exceed 6.0 pounds per ton of metal.

Compliance with this limitation combined with emissions from other emission units at the source and Condition D.1.1(a) shall limit the CO emissions from the entire source to less than one hundred (100) tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.2.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the:

- (a) Pouring and cooling operation, identified as Pour and Cool, shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.66 tons per hour.
- (b) Sand handling operation, identified as E-3, shall not exceed 44.2 pounds per hour each when operating at a process weight rate of 48.0 tons per hour, each.
- (c) Shakeout operation, identified as Shakeout, shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.66 tons per hour.
- (d) Manual rotolift machine, identified as E-4, shall not exceed 45.3 pounds per hour when operating at a process weight rate of 54.0 tons per hour.
- (e) Automatic molding machine, BP 2620, identified as E-4, shall not exceed 45.3 pounds per hour when operating at a process weight rate of 54.0 tons per hour.
- (f) Seven (7) manual molding machines, identified as C, shall not exceed 49.1 pounds per hour total when operating at a process weight rate of 80.6 tons per hour, total.

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

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

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

or

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

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

D.2.4 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 sand handling operation, identified as E-3, the manual rotolift machine, identified as E-4, and the automatic molding machine, BP 2620, identified as E-4, and their control device.

Compliance Determination Requirements

D.2.5 Particulate Control [326 IAC 2-7-6(6)]

- (a) In order to comply with Conditions D.2.1 and D.2.3, the baghouse, identified as C3, for particulate control shall be in operation and control emissions from the sand handling operation, identified as E-3, manual rotolift machine, identified as E-4, and automatic molding machine, BP 2620, identified as E-4, at all times that any of these facilities are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

Prior to May 4, 2011 or within five (5) years of the last valid stack test in order to demonstrate compliance with Conditions D.2.1 and D.2.3, the Permittee shall perform PM and PM₁₀ testing for pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, all exhausted through Stack S-3, 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. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.2.7 Visible Emissions Notations [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) Visible emission notations of the pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, stack exhaust S-3 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.8 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the baghouse, identified as C-3, used in conjunction with the sand handling operation, identified as E-3, manual rotolift machine,

identified as E-4, and automatic molding machine, BP 2620, identified as E-4, at least once per day when these facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.2.9 Broken or Failed Bag Detection

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

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

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

D.2.10 Record Keeping Requirements

- (a) To document compliance with Condition D.2.7, the Permittee shall maintain a daily record of visible emission notations of the pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, stack exhaust S-3. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., none of the processes operated that day).
- (b) To document compliance with Condition D.2.8, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the sand handling operation, identified as E-3, manual rotolift machine, identified as E-4, and automatic molding machine, BP 2620, identified as E-4. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., none of the processes operated that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Core Making & Emission Units Exhausted Through Stack S-2

- (j) One (1) core making operation, identified as F, installed in 1970, consisting of two (2) manual shell machines, exhausting inside the building, capacity: 100 pounds of sand per hour each and 6.00 tons of metal per hour total.
- (k) One (1) natural gas fired oil-sand core oven, identified as F, rated at 0.100 million British thermal units per hour, installed in 2001, exhausting through Stack S-2, capacity: 96 pounds of sand, core oil, water and binders or sand, shell resin, catalyst and water per hour, total.
- (l) One (1) grinding and finishing operation, identified as D, consisting of six (6) stationary grinders, three (3) installed in 1965, one (1) installed in 1970 and two (2) installed in 1983, capacity: 6.00 tons of metal per hour total, one (1) shot-blaster, installed in 1985, capacity: 6.00 tons of metal per hour, one (1) rotary tumbler, installed in 1967, capacity: 6.00 tons of metal per hour and one (1) shared bag-house, identified as SBH, exhausting through Stack S-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.3.1 PM and PM₁₀ PSD Minor Limits [326 IAC 2-2]

- (a) The PM emissions from the core making operation, identified as F, shall not exceed 0.90 pounds per ton.
- (b) The PM₁₀ emissions from the core making operation, identified as F, shall not exceed 0.90 pounds per ton.
- (c) The PM emissions from the grinding and finishing operation, identified as D, shall not exceed 0.510 pounds per ton.
- (d) The PM₁₀ emissions from the grinding and finishing operation, identified as D, shall not exceed 0.051 pounds per ton.

Compliance with these limitations and Conditions D.1.1 and D.2.1 combined with emissions from other emission units at the source shall limit the PM and PM₁₀ emissions from the entire source to less than one hundred (100) tons per year each, and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.3.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the:

- (1) Core making operation, identified as F, shall not exceed 13.8 pounds per hour when operating at a process weight rate of 6.10 tons per hour.
- (2) Grinding and finishing operation, identified as D, shall not exceed 13.6 pounds per hour when operating at a process weight rate of 6.0 tons per hour.

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

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

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

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the grinding and finishing operation, identified as D, and its control device.

Compliance Determination Requirements

D.3.4 Particulate Control [326 IAC 2-7-6(6)]

- (a) In order to comply with Conditions D.3.1 and 3.2, the baghouse, identified as SBH, for particulate control shall be in operation and control emissions from the grinding and finishing operation, identified as D, at all times that this process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.3.5 Visible Emissions Notations

- (a) Visible emission notations of the grinding and finishing operation, identified as D, stack exhaust S-2 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the baghouse, identified as SBH, used in conjunction with the grinding and finishing operation, identified as D, at least once per day when these facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take

response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.3.7 Broken or Failed Bag Detection

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

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

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

D.3.8 Record Keeping Requirements

- (a) To document compliance with Condition D.3.5, the Permittee shall maintain a daily record of visible emission notations of the grinding and finishing operation, identified as D, baghouse stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the grinding and finishing operation, identified as D, did not operate that day).
- (b) To document compliance with Condition D.3.6, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the grinding and finishing operation, identified as D. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the grinding and finishing operation, identified as D, did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Akron Foundry, Inc.
Source Address: 502 Main Street, Akron, Indiana 46910
Mailing Address: 502 Main Street, Akron, Indiana 46910
Part 70 Permit No.: T 049-18819-00001

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
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Akron Foundry, Inc.
Source Address: 502 Main Street, Akron, Indiana 46910
Mailing Address: 502 Main Street, Akron, Indiana 46910
Part 70 Permit No.: T 049-18819-00001

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, 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: Akron Foundry, Inc.
Source Address: 502 Main Street, Akron, Indiana 46910
Mailing Address: 502 Main Street, Akron, Indiana 46910
Part 70 Permit No.: T 049-18819-00001
Facilities: Two (2) Electric Induction Furnaces, identified as FCE A and FCE B
Parameter: Amount of Metal Melted
Limit: Less than a total of 20,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Amount of Metal Melted (tons)	Amount of Metal Melted (tons)	Amount of Metal Melted (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.
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: Akron Foundry, Inc.
 Source Address: 502 Main Street, Akron, Indiana 46910
 Mailing Address: 502 Main Street, Akron, Indiana 46910
 Part 70 Permit No.: T 049-18819-00001

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

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Akron Foundry, Inc.
Source Location:	502 Main Street, Akron, Indiana 46910
County:	Fulton
SIC Code:	3370
Permit Renewal No.:	T 049-18819-00001
Permit Reviewer:	Frank P. Castelli/MES

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Akron Foundry, Inc. relating to the operation of a grey and ductile iron foundry.

History

On March 10, 2004, Akron Foundry, Inc. submitted an application to the OAQ requesting to renew its operating permit. Akron Foundry, Inc. was issued a Part 70 Operating Permit Renewal on December 28, 1999. Akron Foundry, Inc. has confirmed its desire to renew its Part 70 Operating Permit and not transition to a FESOP.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) scrap and charge handling operation, identified as H, installed in 2000, exhausting inside the building, capacity: 6.00 tons of iron per hour.
- (b) Two (2) electric induction furnaces, identified as FCE A and FCE B, both installed in 1997, exhausting through Vents V8 and V9, capacity: 3.0 tons of metal per hour, each.
- (c) One (1) magnesium treatment system, identified as Mag, constructed prior to 1979, exhausting through Vents V8 and V9, capacity: 6.00 tons of metal per hour.
- (d) One (1) pouring and cooling operation, identified as Pour and Cool, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (e) One (1) sand handling operation, identified as E-3, installed in 2000, consisting of one (1) Carrier auto vibrator shakeout, one (1) combination return sand storage bin with rotary screen, one (1) muller, one (1) bucket elevator and one (1) conveyor, all equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour.
- (f) One (1) shakeout operation, identified as Shakeout, installed in 2000, exhausting through Stack S-3, capacity: 6.00 tons of metal per hour and 10.66 tons of sand molds and cores per hour.
- (g) One (1) manual rotolift machine, identified as E-4, installed in 1986, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.

- (h) One (1) automatic molding machine, BP 2620, identified as E-4, installed in 2000, equipped with a baghouse, identified as C3, exhausting through Stack S-3, capacity: 48.0 tons of sand per hour and 6.0 tons of metal per hour.
- (i) Seven (7) manual molding machines, identified as C, consisting of one (1) rotolift, installed in 1984, and six (6) portable floor squeezers, installed between 1950 and 1975, exhausting through Stack S-3, capacity: 10.66 tons of sand per hour, each and 6.0 tons of metal per hour total.
- (j) One (1) core making operation, identified as F, installed in 1970, consisting of two (2) manual shell machines, exhausting inside the building, capacity: 100 pounds of sand per hour each and 6.00 tons of metal per hour total.
- (k) One (1) natural gas fired oil-sand core oven, identified as F, rated at 0.100 million British thermal units per hour, installed in 2001, exhausting through Stack S-2, capacity: 96 pounds of sand, core oil, water and binders or sand, shell resin, catalyst and water per hour, total.
- (l) One (1) grinding and finishing operation, identified as D, consisting of six (6) stationary grinders, three (3) installed in 1965, one (1) installed in 1970 and two (2) installed in 1983, capacity: 6.00 tons of metal per hour total, one (1) shot-blaster, installed in 1985, capacity: 6.00 tons of metal per hour, one (1) rotary tumbler, installed in 1967, capacity: 6.00 tons of metal per hour and one (1) shared baghouse, identified as SBH, exhausting through Stack S-2.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no unpermitted emission units operating at this source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

- (a) One (1) sand handling operation consisting of one (1) muller installed in 1995, capacity: 21 tons of sand per hour, one (1) screenerator, installed in 1995, capacity: 21 tons of sand per hour, one (1) bucket elevator, installed in 1995, capacity: 21 tons of sand per hour, one (1) bucket loader, installed prior to 1995, capacity: 21 tons of sand per hour, wet sand conveyors, installed prior to 1995, capacity: 21 tons of sand per hour, one (1) sand and clay addition system, installed in 1995, capacity: 0.12 tons of sand and clay per hour and one (1) shared baghouse for particulate matter control, exhausting through Stack S-2.
- (b) Three (3) manual molding machines, identified as C, consisting of three (3) portable floor squeezers, installed between 1950 and 1975, exhausting through Stack S-3, capacity: 10.66 tons of sand per hour, each.
- (c) One (1) automatic molding machine.

New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval

There are no proposed emission units during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank capacity of less than or equal to 10,500 gallons, and dispensing 3,500 gallons per day or less.
- (b) The following VOC and HAP storage containers: Vessels storing lubricating and hydraulic oils.
- (c) Production related activities including the following:
 - (1) Cleaners and solvents characterized as follows where the use of which, for all cleaners and solvents combined does not exceed 145 gallons per twelve (12) months.
 - (2) The following equipment related to manufacturing activities not resulting in the emission of HAPs: cutting torches and welding equipment.
 - (3) Closed loop heating and cooling systems.
- (d) Repair activities including the following:

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

Existing Approvals

Since the issuance of the Part 70 Operating Permit T 049-5899-00001 on December 28, 1999, the source has constructed or has been operating under the following approvals as well:

- (a) First Significant Source Modification 049-11484-00001, issued on January 14, 2000;
- (b) First Minor Source Modification 049-14651-00001, issued on November 2, 2001;
- (c) First Minor Permit Modification 049-14865-00001, issued on November 20, 2001;
- (d) First Reopening 049-13292-00001, issued on December 18, 2001;
- (e) Second Minor Source Modification 049-17893-00001, issued on September 16, 2003; and
- (f) Second Minor Permit Modification 049-17953-00001, issued on September 17, 2003.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) Part 70 Operating Permit T 049-5899-00001 on December 28, 1999

Condition D.1.1(a): Pursuant to CP-049-7103-00001 issued on December 2, 1996 and 326 IAC 2-2, the particulate matter (PM) emissions from the two (2) induction furnaces shall not exceed 2.74 pounds per hour, each to avoid the applicability of 326 IAC 2-2.

Condition D.1.1(a): The PM₁₀ emissions from the two (2) induction furnaces shall not exceed 3.20 pounds per hour, total to avoid the applicability of 326 IAC 2-2.

Reason revised:

Condition D.1.2 of Part 70 Operating Permit T 049-5899-00001 on December 28, 1999 limits the total metal melted at this source to 10,000 tons per twelve (12) consecutive month period which has been revised in this renewal to 20,000 tons per twelve (12) consecutive month period. The U.S. EPA AP-42 PM and PM₁₀ emission rates for electric induction furnaces are 0.90 pounds per ton and 0.86 pounds per ton, respectively. In addition since the magnesium treatment system also exhausts through the same vents as the two (2) electric induction furnaces, the U.S. EPA AP-42 PM and PM₁₀ emission rates of 1.80 pounds per ton each have been added to the emission rates for the electric induction furnaces. Therefore, the revised emission rates for the two (2) electric induction furnaces, identified as FCE A and FCE B, and the magnesium treatment system, identified as mag, are 2.70 pounds of PM per ton of metal melted and treated and 2.66 pounds of PM₁₀ per ton of metal melted and treated.

(b) Part 70 Operating Permit T 049-5899-00001 on December 28, 1999

Condition D.2.2: The particulate matter and PM₁₀ emissions from the pouring and cooling operation shall not exceed 4.2 pounds per ton of metal poured and cooled, equivalent to 21.0 tons of PM and PM₁₀ per year at the production limit of 10,000 tons of metal melted per twelve (12) consecutive month period to avoid the applicability of 326 IAC 2-2.

Reason revised:

Since the pouring and cooling operation, identified as Pour and Cool, now exhausts through Stack S-3, and Stack S-3 was previously limited to 5.18 pounds of PM and PM₁₀ per hour, the emissions from this emission unit have been incorporated into the overall PM and PM₁₀ emission limits for Stack S-3 which have been revised by this renewal to less than 10.6 pounds of PM per hour and to less than 12.7 pounds of PM₁₀ per hour.

(c) Part 70 Operating Permit T 049-5899-00001 on December 28, 1999

Condition D.3.2(a): The particulate matter emissions from the shakeout operation shall not exceed 3.20 pounds per ton of metal shakeout, equivalent to 16.0 tons of PM per year at the production limit of 10,000 tons of metal melted per twelve (12) consecutive month period to avoid the applicability of 326 IAC 2-2.

Condition D.3.2(b): The PM₁₀ emissions from the shakeout operation shall not exceed 2.24 pounds per ton of metal shakeout, equivalent to 11.2 tons of PM₁₀ per year at the production limit of 10,000 tons of metal melted per twelve (12) consecutive month period to avoid the applicability of 326 IAC 2-2.

Reasons revised:

Since the shakeout operation, identified as Shakeout, now exhausts through Stack S-3, and Stack S-3 was previously limited to 5.18 pounds of PM and PM₁₀ per hour, the emissions from this emission unit have been incorporated into the overall PM and PM₁₀ emission limits for Stack S-3 which have been revised by this renewal to less than 10.6 pounds of PM per hour and to less than 12.7 pounds of PM₁₀ per hour.

(d) Part 70 Operating Permit T 049-5899-00001 on December 28, 1999

Condition D.6.2: The particulate matter and PM₁₀ emissions from the core making operation shall not exceed 1.10 pounds per ton of metal produced, equivalent to 5.50 tons of PM and PM₁₀ per year at the production limit of 10,000 tons of metal melted per twelve (12) consecutive month period to avoid the applicability of 326 IAC 2-2.

Reason revised:

The Fires v. 6.25 for SCC 03-04-003-53 (core making ovens) is now 0.9 pounds of PM and PM₁₀ per ton rather than 1.1 pounds per ton of metal and is now equivalent to 9.00 tons per year at a production limit of 20,000 tons of metal melted per year.

(e) Part 70 Operating Permit T 049-5899-00001 on December 28, 1999

Condition D.7.2: The particulate matter and PM₁₀ emissions from the scrap and charge handling operation shall not exceed 0.60 pounds per ton of metal charged, equivalent to 3.00 tons of PM and PM₁₀ per year at the production limit of 10,000 tons of metal melted per twelve (12) consecutive month period to avoid the applicability of 326 IAC 2-2.

Reason revised:

The Fires v. 6.25 for SCC 03-04-003-15 (charge handling) is now 0.36 pounds of PM₁₀ per ton rather than 0.60 pounds per ton of metal and is now equivalent to 3.60 tons per year at a production limit of 20,000 tons of metal melted per year.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit Renewal:

All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
Vents V8 & V9	Electric Induction Furnaces (FCE-A & FCE-B)	20	3.0	500	68
S-3	Pouring & Cooling (pour and Cool), Sand Handling (E-3), Shakeout (Shakeout), Manual Rotolift Machine (E-4), Automatic Molding Machine (E-4) & Manual Molding Machines (C)	30	2.8	25,500	68
S-2	Grinding & Finishing (D) & Oil-Sand Core Oven (F)	12	1.7	11,200	68

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Fulton County

Pollutant	Status
PM ₁₀	Attainment
PM _{2.5}	Attainment
SO ₂	Attainment
NO _x	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Fulton County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Fulton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (d) Fugitive Emissions
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	1,570
PM ₁₀	436
SO ₂	0.526
VOC	51.6
CO	158
NO _x	26.6

HAPs	tons/year
Phenol	0.256
Lead	1.16
Benzene	0.000001
Dichlorobenzene	0.000001
Formaldehyde	0.000003
Hexane	0.001
Toluene	0.000001
Cadmium Compounds	0.040
Chromium Compounds	0.256
Manganese Compounds	0.591
Nickel Compounds	0.450
Colbalt	0.020
Arsenic	0.088
Selenium	0.007
Total	3.58

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM₁₀ is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than one hundred (<100) tons per year.

Fugitive Emissions

Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.

Actual Emissions

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

Pollutant	Actual Emissions (tons/year)
PM _{2.5}	10
PM ₁₀	14
SO ₂	0
VOC	3
CO	not reported
NO _x	0
Lead	0.13

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit (ID) (Exhaust/Stack)	Potential to Emit (tons/year)							
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Pb	
Scrap and Charge Handling (H) (inside)	6.00	3.60	-	-	-	-	0.023	
2 Electric Induction Furnaces (FCE A & B) (V8 & V9)	9.00	8.60	-	-	-	-	0.090	
Magnesium Treatment (Mag) (V8 & V9)	18.0	18.0	-	0.050	-	-	-	
Pouring/Casting (Pour and Cool) (S-3)	46.7	55.8	0.200	1.40	60.0	0.100	0.162	
Casting/Cooling (Pour and Cool) (S-3)			-	-	-	-	-	
Sand Handling Operation (E-3) (S-3)			-	-	-	-	-	
Shakeout Operation (Shakeout) (S-3)			-	12.00	-	-	-	0.123
Manual Rotolift Machine (E-4) (S-3)			-	-	-	-	5.00	-
Automatic Molding Machine (E-4) (S-3)			-	-	-	-	-	-
7 Manual Molding Machines (C) (S-3)								
Core Making Operation (F) (inside)	9.00	9.00	-	-	-	5.00	-	
Natural Gas-Fired Oil-Sand Core Oven (F) (S-2)	0.758	0.760	0.0003	15.1	0.037	0.044	-	
Grinding and Finishing Operation (D) (S-2)	5.10	0.510	-	-	-	-	0.001	
Insignificant Activities	0.5	0.5	-	1.10	-	-	-	
Total	95.0	96.8	0.200	29.7	60.0	10.1	0.399	
Major Source Threshold	100	100	100	100	100	100	5	

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than one hundred (<100) tons per year, and it is one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

Federal Rule Applicability

The following federal rules are applicable to the source:

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to the existing emission units that involve a pollutant-specific emission unit and meet the following three (3) criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit with a control device and specified pollutant subject to CAM. Since the only pollutants with an unrestricted potential to emit for the entire source are PM and PM₁₀, none of the other pollutants, including HAPs which are also less than the major source thresholds are addressed in the table. Since the scrap and charge handling operation, the two (2) electric induction furnaces, the pouring and cooling operation, the shakeout operation, the seven (7) manual molding machines, the core making operation, the natural gas-fired core oven, and the magnesium treatment system are not equipped with control devices, none of these emission units are included in the table.

Emission Unit / Pollutant	Control Device Used (ID)	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Sand Handling Operation (E-3) (PM/PM ₁₀)	Baghouse (C3)	Yes	113.5	22.7 / 3.41 Stack S-3	100	Yes	No
Manual Rotolift Machine (E-4) (PM/PM ₁₀)	Baghouse (C3)	Yes	23.7	0.710 / 0.710 Stack S-3	100	No	No
Automatic Molding Machine (E-4) (PM/PM ₁₀)	Baghouse (C3)	Yes	23.7	0.710 / 0.710 Stack S-3	100	No	No
Grinding & Finishing Operation (D) (PM/PM ₁₀)	Baghouse (SBH)	Yes	44.7	13.4 / 1.34	100	No	No

Based on this evaluation, the requirements of 40 CFR Part 64, CAM is applicable to the sand handling operation for PM₁₀. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE), which is incorporated by reference as 326 IAC 20-92 is not included in this permit because this source is not a major source of HAPs.
- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

Akron Foundry, Inc. is one of the 28 listed source categories under 326 IAC 2-2. This source is an existing minor PSD source because the potential to emit of each regulated pollutants after controls and limits is less than one hundred (100) tons per year.

- (a) Pursuant to SSM 049-11484-00001, issued on January 14, 2000, and revised by T 049-18819-00001, the amount of metal melted shall be limited to 20,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Pursuant to SSM 049-11484-00001, issued on January 14, 2000, and revised by T 049-18819-00001, the emissions from the pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, all exhausted through Stack S-3, shall be less than a total of 10.6 pounds of PM per hour and shall be less than a total of 12.7 pounds of PM₁₀ per hour.
- (c) Scrap and charge handling operation, identified as H, shall be limited to an emission limit of 0.60 pounds of PM per ton of metal and 0.36 pounds of PM₁₀ per ton of metal.
- (d) Two (2) electric induction furnaces, identified as FCE A and FCE B, plus the emissions from the magnesium treatment system, identified as Mag, shall be limited to the combined emission limits of 2.70 pounds of PM per ton of metal and 2.86 pounds of PM₁₀ per ton of metal.
- (e) Core making operation, identified as F, shall be limited to the emission limits of 0.90 pounds of PM per ton of metal and 0.90 pounds of PM₁₀ per ton of metal.
- (f) Grinding and finishing operation, identified as D, shall be limited to the PM and PM₁₀ emission limits of 0.510 pounds of PM per ton of metal and 0.051 pounds of PM₁₀ per ton of metal.
- (g) Emissions from Stack S-3 shall be limited to a CO emission limit of 6.0 pounds per ton of metal.

Compliance with these limits combined with emissions from other emission units at the source renders 326 IAC 2-2 not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), an emission statement must be submitted triennially by July 1 beginning in 2004 and every three (3) years after. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

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 6-5 (Fugitive Particulate Matter Emission Limitations)

Since this source was first permitted by OP 25-04-83-0051, issued on April 24, 1979, which is before the December 13, 1985 applicability date of this rule, the requirements of 326 IAC 6-5 are not included in this permit.

State Rule Applicability – Individual Facilities

326 IAC 2-4.1-1 (New source toxics control)

The Permittee has constructed following emission units after July 27, 1997 applicability date of this rule:

- (a) One (1) scrap and charge handling operation, identified as H, installed in 2000.
- (b) Two (2) electric induction furnaces, identified as FCE A and FCE B, both installed in 1997.
- (c) One (1) pouring and cooling operation, identified as Pour and Cool, installed in 2000.
- (d) One (1) sand handling operation, identified as E-3, installed in 2000, consisting of one (1) Carrier auto vibrator shakeout, one (1) combination return sand storage bin with rotary screen, one (1) muller, one (1) bucket elevator and one (1) conveyor, all equipped with a baghouse, identified as C3.
- (e) One (1) shakeout operation, identified as Shakeout, installed in 2000.
- (f) One (1) automatic molding machine, BP 2620, identified as E-4, installed in 2000

None of these emission units are subject to the requirements of this rule because the potential to emit HAPs from each emission unit is less than the major HAPs thresholds of 10/25 tons per year for a single/combination of HAPs.

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

The particulate from the listed emission units shall be limited as described in the following table:

Emission Unit (ID) (Exhaust/Stack)	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Potential to Emit (lbs/hr) / How will unit comply with 326 IAC 6-3-2?
Scrap and Charge Handling (H) (inside)	6.0	13.6	3.61 / no control
2 Electric Induction Furnaces (FCE A & B) (V8 & V9)	3.0 each	8.56 each	2.70 each /no control
Pouring/Casting (Pour and Cool) (S-3)	16.66	27.0	25.2 / no control
Casting/Cooling (Pour and Cool) (S-3)	16.66	27.0	8.40 / no control
Sand Handling Operation (E-3) (S-3)	48.0	44.2	5.18 / baghouse (C3)
Shakeout Operation (Shakeout) (S-3)	16.66	27.0	19.2 / no control
Manual Rotolift Machine (E-4) (S-3)	54.0	45.3	0.162 / baghouse (C3)
Automatic Molding Machine (E-4) (S-3)	54.0	45.3	0.162 / baghouse (C3)
Core Making Operation (F) (inside)	6.10	13.8	5.40 / no control
7 Manual Molding Machines (C) (S-3)	80.6 total	49.1 total	5.40 total / no control
Grinding and Finishing Operation (D) (S-2)	6.0	13.6	3.06 / baghouse (SBH)
Magnesium Treatment System (Mag) (V8 & V9)	6.0	13.6	10.8 / no control

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

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

or

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

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

The above table shows that each of the individual emission units can comply with the requirements of 326 IAC 6-3-2 as well as each of the combined exhausts.

The baghouse, identified as C3, shall be in operation at all times the sand handling operation, identified as E-3, manual rotolift machine, identified as E-4, or automatic molding machine, BP 2620, identified as E-4 are in operation, in order to comply with these limits.

The baghouse, identified as SBH, shall be in operation at all times the grinding and finishing operation, identified as D, is in operation, in order to comply with these limits.

Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired oil-sand core oven, is exempt from the requirements of 326 IAC 6-3-2 because it has a potential to emit PM of less than 0.551 pounds per hour.

326 IAC 8-1-6 (New facilities; general reduction requirements)

The shakeout, the natural gas-fired oil-sand core oven, and pouring and cooling operation were all constructed after January 1, 1980 and emit VOC. The natural gas-fired oil-sand core oven and the pouring and cooling operation have a potential to emit of less than twenty-five (25) tons per year each. Only the shakeout operation could be subject to the requirements of 326 IAC 8-1-6 because its potential to emit of VOC is greater than twenty-five (25) tons per year. Since the source has elected to limit the production of metal to less than 20,000 tons per year, the potential to emit VOC from the shakeout operation is limited to 12.0 tons per year and thus the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 9-1-2 (Carbon monoxide emission limits)

This foundry constructed after the 1972 applicability date of this rule is not subject to the requirements of this rule because the source does not operate a cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.

326 IAC 11-1 (Existing Foundries)

This foundry is not subject to the requirements of 326 IAC 11-1-2 because this foundry was constructed after the December 6, 1968 applicability date of this rule.

State Rule Applicability – Insignificant Activities

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

(a) Welding

The insignificant welding activity consumes less than 625 pounds of weld wire or rod per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the insignificant welding activity is exempt from the requirements of 326 IAC 6-3.

(b) Torch Cutting

Less than 3,400 inches per hour of stock 1-inch thickness or less is cut at the insignificant torch cutting activity. Therefore, pursuant to 326 IAC 6-3-1(b)(10), the insignificant torch cutting activity torch cutting is exempt from the requirements of 326 IAC 6-3.

Testing Requirements

(a) Previous Stack Tests

The previous stack tests for this source are summarized below:

(1) August 23, 2000

The sand handling operation baghouse, identified as C3, exhausting through Stack S-3, was tested for PM and PM₁₀ emissions on August 23, 2000. The

sand handling operation is rated at 48 tons per hour, but was only operated at 23.1 tons per hour during this test.

The average PM emission rate measured was 0.75 pounds per hour which would be equivalent to 1.56 pounds per hour scaled up to the maximum production rate of 48 tons per hour. This PM emission rate is in compliance with the 44.2 pounds per hour allowable emission rate pursuant to 326 IAC 6-3-2 and with the PM emission limit of 5.18 pounds per hour that was required to make this a minor source pursuant to 326 IAC 2-2 (PSD).

The average measured PM₁₀ emission rate was 1.59 pounds per hour which would be equivalent to 3.30 pounds per hour scaled up to the maximum production rate of 48 tons per hour. This emission rate is in compliance with the PM₁₀ emission limit of 5.18 pounds per hour that was required to make this a minor source pursuant to 326 IAC 2-2 (PSD).

(2) May 4, 2006

The sand handling operation baghouse and the grinding and finishing operation baghouse were tested on May 4, 2006. These performance tests have been completed, but they have not yet been assessed by IDEM, OAQ.

(b) The following stack testing requirements are included in this permit for the control equipment:

Prior to May 4, 2011 or within five (5) years of the last valid stack test in order to demonstrate compliance with the PM and PM₁₀ emission limits of 10.6 and 12.7 pounds per hour, respectively, and allowable PM emission rate pursuant to 326 IAC 6-3-2, the Permittee shall perform PM and PM₁₀ testing for pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the manual molding machines, identified as C, all exhausted through Stack S-3, 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. PM₁₀ includes filterable and condensable PM₁₀.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The pouring and cooling operation, identified as Pour and Cool, sand handling operation, identified as E-3, shakeout operation, identified as Shakeout, manual rotolift machine, identified as E-4, automatic molding machine, BP 2620, identified as E-4, and the seven (7) manual molding machines, identified as C, all exhausted through Stack S-3, has applicable compliance determination conditions as specified below:

Emission Unit (ID) (Exhaust)	Control Device (ID)	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Pouring and Cooling Operation (Pour and Cool) (S-3)	None	Prior to May 4, 2011 or Within Five (5) Years of Last Valid Compliance Demonstration	PM and PM ₁₀	Once Every Five (5) Years	5.18 lbs/hr Total and 326 IAC 6-3-2
Sand Handling Operation (E-3) (S-3)	Baghouse (C3)				
Shakeout Operation (Shakeout) (S-3)	None				
Manual Rotolift Machine (E-4) (S-3)	Baghouse (C3)				
Automatic Molding Machine (E-4) (S-3)	Baghouse (C3)				
7 Manual Molding Machines (C) (S-3)	None				

The Compliance Assurance Monitoring and compliance monitoring requirements applicable to this source are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Baghouse (C3) (CAM)	Water Pressure Drop	Daily	3 to 8 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Baghouse (SBH)	Water Pressure Drop	Daily	2 to 7 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

These monitoring conditions are necessary because the baghouses for the sand handling operation, grinding and finishing operation, manual rotolift machine and the automatic molding machine must operate properly to ensure compliance with 40 CFR 64, 326 IAC 6-3, 326 IAC 2-2 and 326 IAC 2-7.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on March 10, 2004. Additional information was received on April 13, 2007 and on July 2, 2007.

Conclusion

The operation of this grey and ductile iron foundry shall be subject to the conditions of the attached **Part 70 Operating Permit Renewal No. T 049-18819-00001**.

**Appendix A: Emission Calculations
Grey Iron Foundry Emissions**

Company Name: Akron Foundry, Inc.
 Address City IN Zip: 502 Main Street, Akron, Indiana 46910
 Permit Number: T 049-18819-00001
 Reviewer: Frank P. Castelli
 Date: Sept. 12, 2007

Melt limit
20,000 tons per year

** Process Emissions **

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Scrap and Charge Handling (H) - inside Exhausted inside the building SCC# 3-04-003-15 FIRE 6.25 AP-42 Ch. 12.10 Fifth edition 1995	6.00	PM	0.60	15.8	None		15.8	6.00	6.00
		PM-10	0.36	9.46	None		9.46	3.60	3.60
		SO2	0.00	0.00	None		0.00	0.00	0.00
		NOx	0.00	0.00	None		0.00	0.00	0.00
		VOC	0.00	0.00	None		0.00	0.00	0.00
		CO	0.00	0.00	None		0.00	0.00	0.00
		chromium	0.0002	0.0060	None		0.0060	0.0023	0.0023
		cobalt	0.00002	0.0005	None		0.0005	0.0002	0.0002
		nickel	0.0004	0.0105	None		0.0105	0.0040	0.0040
		arsenic	0.0001	0.0021	None		0.0021	0.0008	0.0008
		cadmium	0.00004	0.0011	None		0.0011	0.0004	0.0004
		selenium	0.00001	0.0003	None		0.0003	0.0001	0.0001
		Lead	0.0023	0.0604	None		0.0604	0.023	0.023

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 6 tons/hr
 limit = 4.1 x (6 ^0.67) = 13.6 lb/hr (allowable)

with potential:
 15.8 tons/yr x 2000 lb/ton / 8760 hr/yr = 3.60 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Two (2) Electric Induction Furnaces (FCE A & FCE B) Vents V8 & V9 Source of Criteria Pollutant Factors: EPA SCC# 3-04-003-03 FIRE 6.25 AP-42 Ch. 12.10 Fifth edition 1995	6.00	PM	0.90	23.7	None		23.7	9.00	9.00
		PM-10	0.86	22.6	None		22.6	8.60	8.60
		SO2	0.00	0.00	None		0.00	0.00	0.00
		NOx	0.00	0.00	None		0.00	0.00	0.00
		VOC	0.00	0.00	None		0.00	0.00	0.00
		CO	0.00	0.00	None		0.00	0.00	0.00
		chromium	0.0002	0.0060	None		0.0060	0.002	0.002
		cobalt	0.0000	0.0005	None		0.0005	0.0002	0.0002
		nickel	0.0004	0.0105	None		0.0105	0.004	0.004
		arsenic	0.0001	0.0021	None		0.0021	0.001	0.001
		cadmium	0.00004	0.0011	None		0.0011	0.0004	0.0004
		FIRE 6.01 manganese	0.0225	0.5913	None		0.5913	0.225	0.225
		FIRE 6.01 selenium	0.00001	0.0003	None		0.0003	0.0001	0.0001
		FIRE 6.01 Lead	0.0090	0.2365	None		0.2365	0.090	0.090

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 3 tons/hr each
 limit = 4.1 x (3 ^0.67) = 8.56 lb/hr (allowable)

For each furnace
 with potential:
 11.8 tons/yr x 2000 lb/ton / 8760 hr/yr = 2.70 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Pouring/Casting (Pour and Cool) Stack S-3 <i>Source of Criteria</i> <i>Pollutant Factors:</i> <i>FIRE 6.25</i> <i>SCC# 3-04-003-18</i> <i>(except as noted)</i>	6.00	PM	4.20	110.4	None		110.4	42.0	included in
	FIRE 5.0	PM-10	2.06	54.1	None		54.1	20.6	S-3 limit
		SO2	0.02	0.53	None		0.53	0.200	0.200
		NOx	0.01	0.26	None		0.26	0.100	0.100
		VOC	0.14	3.68	None		3.68	1.40	1.40
		CO	6.00	157.68	None		157.68	60.0	60.0
		chromium	0.0016	0.0420	None		0.0420	0.016	0.016
		cobalt	0.0001	0.0034	None		0.0034	0.001	0.001
		nickel	0.0028	0.0738	None		0.0738	0.028	0.028
		arsenic	0.0006	0.0145	None		0.0145	0.006	0.006
		cadmium	0.0003	0.0066	None		0.0066	0.003	0.003
		selenium	0.00004	0.0011	None		0.0011	0.0004	0.0004
		Lead	0.0162	0.4249	None		0.4249	0.162	0.162

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 16.66 \text{ tons/hr} \quad \text{Metal + 10.66 tons per hour of sand molds and cores}$$

$$\text{limit} = 4.1 \times (16.66^{0.67}) = 27.00 \text{ lb/hr} \quad (\text{allowable})$$

with potential:
110.4 tons/yr x 2000 lb/ton / 8760 hr/yr = 25.2 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Castings Cooling (Pour and Cool) Stack S-3 <i>Source of Criteria</i> <i>Pollutant Factors:</i> <i>FIRE 6.25</i> <i>SCC# 3-04-003-25</i>	6.00	PM	1.40	36.79	none		36.8	14.0	included in
	6.00	PM-10	1.40	36.79	none		36.8	14.0	S-3 limit
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.00	0.00	none		0.00	0.00	0.00
		VOC	0.00	0.00	none		0.00	0.00	0.00
		CO	---	0.00	none		0.00	0.00	0.00
		Lead	---	0.00	none		0.00	0.00	0.00

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 16.66 \text{ tons/hr} \quad \text{Metal + 10.66 tons per hour of sand molds and cores}$$

$$\text{limit} = 4.1 \times (16.66^{0.67}) = 27.00 \text{ lb/hr} \quad (\text{allowable})$$

with potential:
36.8 tons/yr x 2000 lb/ton / 8760 hr/yr = 8.40 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Shakeout (Shakeout) Stack S-3 Source of Criteria Pollutant Factors: FIRE 6.25 SCC# 3-04-003-31 AP-42 Ch. 12.10 Fifth edition 1995	6.00	PM	3.20	84.10	none		84.1	32.0	included in S-3 limit
		PM-10	2.24	58.87	none		58.9	22.4	
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.00	0.00	none		0.00	0.00	0.00
		VOC	1.20	31.54	none		31.5	12.00	12.00
		CO	---	0.00	none		0.00	0.00	0.00
		chromium	0.0012	0.0321	none		0.0321	0.012	0.012
		cobalt	0.0001	0.0026	none		0.0026	0.001	0.001
		nickel	0.0021	0.0562	none		0.0562	0.021	0.021
		arsenic	0.0004	0.0110	none		0.0110	0.004	0.004
		cadmium	0.0002	0.0050	none		0.0050	0.002	0.002
		selenium	0.0000	0.0008	none		0.0008	0.0003	0.0003
		Lead	0.0123	0.3238	none		0.3238	0.123	0.123

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 16.66 \text{ tons/hr} \quad \text{Metal} + 10.66 \text{ tons per hour of sand molds and cores}$$

$$\text{limit} = 4.1 \times (16.66^{0.67}) = 27.00 \text{ lb/hr} \quad (\text{allowable})$$

with potential:
84.1 tons/yr x 2000 lb/ton / 8760 hr/yr = 19.2 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Grinding and Finishing (D) Stack S-2 Including Shotblasting Source of Criteria Pollutant Factors: FIRE 6.25 SCC# 3-04-003-40 & SCC# 3-04-003-60 AP-42 Ch. 12.10 Fifth edition 1995 PM/PM10 = 17.0/1.70 lb/ton for Shotblasting PM/PM10 = 0.01/0.0045 lb/ton for Finishing	6.00	PM	17.01	447.02	Baghouse	97.0%	13.41	5.10	5.10
		PM-10	1.7045	44.79	Baghouse	97.0%	1.34	0.511	0.511
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.00	0.00	none		0.00	0.00	0.00
		VOC	0.00	0.00	none		0.00	0.00	0.00
		CO	0.00	0.00	none		0.00	0.00	0.00
		chromium	0.0065	0.1698	Baghouse	97.0%	0.005	0.002	0.002
		cobalt	0.0005	0.0134	Baghouse	97.0%	0.0004	0.0002	0.0002
		nickel	0.0114	0.2993	Baghouse	97.0%	0.009	0.003	0.003
		arsenic	0.0022	0.0581	Baghouse	97.0%	0.002	0.001	0.001
		cadmium	0.0010	0.0268	Baghouse	97.0%	0.001	0.0003	0.0003
		selenium	0.0002	0.0045	Baghouse	97.0%	0.0001	0.0001	0.0001
		Lead	0.0045	0.1183	Baghouse	97.0%	0.004	0.001	0.001

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = 6 \text{ tons/hr}$$

$$\text{limit} = 4.1 \times (6^{0.67}) = 13.6 \text{ lb/hr} \quad (\text{allowable})$$

with potential:
13.4 tons/yr x 2000 lb/ton / 8760 hr/yr = 3.06 lb/hr (can comply)

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Core Making (2 machines) (F) inside <i>Source of Criteria</i> <i>Pollutant Factors:</i> FIRE 6.25 SCC# 3-04-003-53 Exhausted inside the building	6.00	PM	0.90	23.65	none		23.7	9.00	9.00
		PM-10	0.90	23.65	none		23.7	9.00	9.00
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.50	13.1	none		13.1	5.00	5.00
		VOC	---	0.00	none		0.00	0.00	0.00
		CO	---	0.00	none		0.00	0.00	0.00
		Lead	---	0.00	none		0.00	0.000	0.00

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$P = \frac{6.1 \text{ tons/hr} \times 100 \text{ pounds of sand each and 6 tons of metal}}{4.1 \times (6.1^{0.67})} = 13.8 \text{ lb/hr (allowable)}$$

with potential:
23.7 tons/yr x 2000 lb/ton / 8760 hr/yr = 5.40 lb/hr (can comply)

Oil-Sand Core Oven (F) Stack S-2

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	0.048	3.6	0.173	0.757	0.0%	0.173	0.757
PM-10	0.048	3.6	0.173	0.757	0.0%	0.173	0.757

VOC

Oil-Sand Core Recipe

Core Oil	0.00172368	2000	3.447	15.099	0.0%	3.447	15.1
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or Air Set Recipe

Catalyst	0.00009744	2000	0.195	0.854	0.0%	0.195	0.854
Binder Part 1	0.0005856	2000	1.171	5.130	0.0%	1.171	5.130
Binder Part 2	0.00048768	2000	0.975	4.272	0.0%	0.975	4.272
Subtotal							10.3
Worst Case VOC							15.1

HAPs

Binder Part 1 (5% Phenol)	0.00002928	2000	0.059	0.256	0.0%	0.059	0.256
---------------------------	------------	------	-------	-------	------	-------	-------

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Manual Rotolift Machine (E-4) Stack S-3 <i>Source of Criteria</i> <i>Pollutant Factors:</i> FIRE 6.25 SCC# 3-04-003-53	6.00	PM	0.90	23.65	Baghouse	97.0%	0.710	0.270	included in
		PM-10	0.90	23.65	Baghouse	97.0%	0.710	0.270	S-3 limit
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.50	13.1	none		13.1	5.00	5.00
		VOC	---	0.00	none		0.00	0.00	0.00
		CO	---	0.00	none		0.00	0.00	0.00
		Lead	---	0.00	none		0.00	0.000	0.00
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)
Automatic Molding Machine (E-4) Stack S-3 <i>Source of Criteria</i> <i>Pollutant Factors:</i> FIRE 6.25 SCC# 3-04-003-53	6.00	PM	0.90	23.65	Baghouse	97.0%	0.710	0.270	included in
		PM-10	0.90	23.65	Baghouse	97.0%	0.710	0.270	S-3 limit
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.50	13.1	none		13.1	5.00	5.00
		VOC	---	0.00	none		0.00	0.00	0.00
		CO	---	0.00	none		0.00	0.00	0.00
		Lead	---	0.00	none		0.00	0.000	0.00
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)
7 Manual Molding Machines (C) Stack S-3 <i>Rotolift & 6 Floor Squeezers</i> <i>Source of Criteria</i> <i>Pollutant Factors:</i> FIRE 6.25 SCC# 3-04-003-53	6.00	PM	0.90	23.65	none		23.7	9.00	included in
		PM-10	0.90	23.65	none		23.7	9.00	S-3 limit
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.50	13.1	none		13.1	5.00	5.00
		VOC	---	0.00	none		0.00	0.00	0.00
		CO	---	0.00	none		0.00	0.00	0.00
		Lead	---	0.00	none		0.00	0.000	0.00
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)
								Eac	melt limit & 2-2 limit (ton/yr)

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

Manual Rotolift Machine (E-4) Stack S-3

P= 54.0 tons/hr

limit = $55 \times (54.0^{0.11}) - 40 = 45.3$ lb/hr (allowable) each

with potential:
0.710 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.162 lb/hr (can comply) each

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

7 Manual Molding Machines (C) Stack S-3

P= 80.6 tons/hr 6 tons/hr + sand of 10.66 tons/hr each

limit = $55 \times (80.6^{0.11}) - 40 = 49.1$ lb/hr (allowable)

with potential:
23.7 tons/yr x 2000 lb/ton / 8760 hr/yr = 5.40 lb/hr (can comply)

Sand Handling not limited

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	
Sand Handling (E-3) Stack S-3 Source of Criteria Pollutant Factors: FIRE 6.25 EPA SCC# 3-04-003-50	48.00	PM	3.6	756.9	Baghouse	97.0%	22.7	
		PM-10	0.54	113.5	Baghouse	97.0%	3.41	

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$\begin{aligned}
 &P = 48 \text{ tons/hr} \\
 \text{limit} &= 55 \times (48^{0.11}) - 40 = 44.2 \text{ lb/hr} \quad (\text{allowable}) \\
 \text{with potential:} & \\
 &22.7 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 5.18 \text{ lb/hr} \quad (\text{can comply})
 \end{aligned}$$

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)	Eac	Eac
								& melt limit (ton/yr)	melt limit & 2-2 limit (ton/yr)
Magnesium Treatment System (Mag) Vents V8 & V9 Source of Criteria Pollutant Factors: FIRE 6.25 SCC# 3-04-003-21 AP-42 Ch 12.10 Fifth edition 1995	6	PM	1.80	47.30	none		47.30	18.00	18.00
		PM-10	1.80	47.30	none		47.30	18.00	18.00
		SO2	0.00	0.00	none		0.00	0.00	0.00
		NOx	0.00	0.00	none		0.00	0.00	0.00
		VOC	0.01	0.13	none		0.131	0.050	0.050
		CO	0.00	0.00	none		0.00	0.00	0.00
		Lead	0.00	0.00	none		0.00	0.000	0.00

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$\begin{aligned}
 &P = 6 \text{ tons/hr} \\
 \text{limit} &= 4.1 \times (6^{0.67}) = 13.6 \text{ lb/hr} \quad (\text{allowable}) \\
 \text{with potential:} & \\
 &47.3 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 10.8 \text{ lb/hr} \quad (\text{can comply})
 \end{aligned}$$

Methodology:

Ef = Emission factor
 Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
 Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc
 1ton = 2000 lbs

Summary of Emissions

Uncontrolled Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Total HAPs (tons/yr)
Scrap and Charge Handling (H) - inside	15.8	9.46	0.00	0.00	0.00	0.00	0.060	0.081
2 Induct. Furnaces (FCE A & FCE B) V8 & V9	23.7	22.6	0.00	0.00	0.00	0.00	0.237	0.848
Pouring/Casting (Pour and Cool) Stack S-3	110.4	54.1	0.526	0.263	3.68	157.68	0.425	0.566
Castings Cooling (Pour and Cool) Stack S-3	36.8	36.8	0.00	0.00	0.00	0.00	0.000	0.000
Shakeout (Shakeout) Stack S-3	84.1	58.9	0.00	0.00	31.5	0.00	0.324	0.432
Grinding and Finishing (D) Stack S-2	447.0	44.8	0.00	0.00	0.00	0.00	0.118	0.690
Core Making (2 machines) (F) inside	23.7	23.7	0.00	13.1	0.00	0.00	0.00	0.00
Oil-Sand Core Oven (F) Stack S-2	0.758	0.760	0.0003	0.044	15.10	0.037	0.00	0.257
Manual Rotolift Machine (E-4) Stack S-3	23.7	23.7	0.00	13.1	0.00	0.00	0.00	0.00
Automatic Molding Machine (E-4) Stack S-3								
7 Manual Molding Machines (C) Stack S-3								
Sand Handling (E-3) Stack S-3	756.9	113.5	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium Treatment System (Mag) V8 & V9	47.30	47.30	0.00	0.00	0.131	0.00	0.00	0.00
Subtotal Significant Emission Unit	1569.9	435.5	0.526	26.6	50.4	157.72	1.16	2.87
Insignificant cleaners & solvent <145 gal.	0.00	0.00	0.00	0.00	0.605	0.00	0.00	0.605
Welding and Cutting	0.500	0.500	0.00	0.00	0.00	0.00	0.00	0.00
Storage Tanks and Vessels	0.00	0.00	0.00	0.00	0.500	0.00	0.00	0.100
Subtotal Insignificant Activities	0.500	0.500	0.00	0.00	1.10	0.00	0.00	0.705
Total	1570.4	436.0	0.526	26.6	51.6	157.72	1.16	3.58

Controlled Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Total HAPs (tons/yr)
Scrap and Charge Handling (H) - inside	15.8	9.46	0.00	0.00	0.00	0.00	0.060	0.081
2 Induct. Furnaces (FCE A & FCE B) V8 & V9	23.7	22.6	0.00	0.00	0.00	0.00	0.237	0.848
Pouring/Casting (Pour and Cool) Stack S-3	110.4	54.1	0.526	0.263	3.68	157.68	0.425	0.566
Castings Cooling (Pour and Cool) Stack S-3	36.79	36.79	0.00	0.00	0.00	0.00	0.00	0.00
Shakeout (Shakeout) Stack S-3	84.1	58.9	0.00	0.00	31.5	0.00	0.324	0.432
Grinding and Finishing (D) Stack S-2	13.4	1.34	0.00	0.00	0.00	0.00	0.004	0.021
Core Making (2 machines) (F) inside	23.7	23.7	0.00	13.1	0.00	0.00	0.00	0.00
Oil-Sand Core Oven (F) Stack S-2	0.758	0.760	0.00	0.044	15.10	0.037	0.00	0.257
Manual Rotolift Machine (E-4) Stack S-3	23.7	23.7	0.00	13.1	0.00	0.00	0.00	0.00
Automatic Molding Machine (E-4) Stack S-3								
7 Manual Molding Machines (C) Stack S-3								
Sand Handling (E-3) Stack S-3	22.7	3.41	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium Treatment System (Mag) V8 & V9	47.30	47.30	0.00	0.00	0.131	0.00	0.00	0.00
Subtotal Significant Emission Unit	402.2	282.0	0.526	26.6	50.4	157.72	1.05	2.21
Insignificant cleaners & solvent <145 gal.	0.00	0.00	0.00	0.00	0.605	0.00	0.00	0.605
Welding and Cutting	0.500	0.500	0.00	0.00	0.00	0.00	0.00	0.00
Storage Tanks and Vessels	0.00	0.00	0.00	0.00	0.500	0.00	0.00	0.100
Subtotal Insignificant Activities	0.500	0.500	0.00	0.00	1.10	0.00	0.00	0.705
Total	402.7	282.5	0.526	26.6	51.6	157.72	1.05	2.91

Limited & Controlled Potential Emissions

Significant Emission Units	PM	PM-10	SO2	NOx	VOC	CO	Lead	Total HAPs
	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
Scrap and Charge Handling (H) - inside	6.00	3.60	0.00	0.00	0.00	0.00	0.023	0.031
2 Induct. Furnaces (FCE A & FCE B) V8 & V9	9.00	8.60	0.00	0.00	0.00	0.00	0.090	0.323
Pouring/Casting (Pour and Cool) Stack S-3	See Stack S-3	See Stack S-3	0.200	0.100	1.400	60.00	0.162	0.216
Castings Cooling (Pour and Cool) Stack S-3	See Stack S-3	See Stack S-3	0.00	0.00	0.00	0.00	0.00	0.00
Shakeout (Shakeout) Stack S-3	See Stack S-3	See Stack S-3	0.00	0.00	12.00	0.00	0.123	0.164
Grinding and Finishing (D) Stack S-2	5.10	0.511	0.00	0.00	0.00	0.00	0.001	0.008
Core Making (2 machines) (F) inside	9.00	9.00	0.00	5.00	0.00	0.00	0.00	0.00
Oil-Sand Core Oven (F) Stack S-2	0.758	0.760	0.0003	0.044	15.1	0.037	0.000	0.257
Manual Rotolift Machine (E-4) Stack S-3	See Stack S-3	See Stack S-3	0.00	5.00	0.00	0.00	0.00	0.00
Automatic Molding Machine (E-4) Stack S-3								
7 Manual Molding Machines (C) Stack S-3								
Sand Handling (E-3) Stack S-3	46.7	55.8	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium Treatment System (Mag) V8 & V9	18.00	18.00	0.00	0.00	0.050	0.00	0.00	0.00
Subtotal Significant Emission Unit	94.5	96.3	0.200	10.1	28.55	60.04	0.399	0.998
Insignificant cleaners & solvent <145 gal.	0.00	0.00	0.00	0.00	0.605	0.00	0.00	0.605
Welding and Cutting	0.500	0.500	0.00	0.00	0.00	0.00	0.00	0.00
Storage Tanks and Vessels	0.00	0.00	0.00	0.00	0.500	0.00	0.00	0.100
Subtotal Insignificant Activities	0.50	0.50	0.00	0.00	1.10	0.00	0.00	0.705
Total	95.0	96.8	0.200	10.1	29.7	60.04	0.399	1.70

Uncontrolled Potential HAPs Emissions

Significant Emission Units	Chromium	Cobalt	Nickel	Arsenic	Cadmium	Manganese	Selenium	Lead	Phenol
	(tons/yr)								
Scrap and Charge Handling (H) - inside	0.0060	0.0005	0.0105	0.0021	0.0011	0.0000	0.0003	0.0604	0.0000
2 Induct. Furnaces (FCE A & FCE B) V8 & V9	0.0060	0.0005	0.0105	0.0021	0.0011	0.5913	0.0003	0.2365	0.0000
Pouring/Casting (Pour and Cool) Stack S-3	0.0420	0.0034	0.0738	0.0145	0.0066	0.0000	0.0011	0.4249	0.0000
Castings Cooling (Pour and Cool) Stack S-3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Shakeout (Shakeout) Stack S-3	0.0321	0.0026	0.0562	0.0110	0.0050	0.0000	0.0008	0.3238	0.0000
Grinding and Finishing (D) Stack S-2	0.1698	0.0134	0.2993	0.0581	0.0268	0.0000	0.0045	0.1183	0.0000
Core Making (2 machines) (F) inside	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Oil-Sand Core Oven (F) Stack S-2	0.000001	0.0000	0.000001	0.0000	0.0000005	0.0000002	0.0000	0.0000002	0.2565
Manual Rotolift Machine (E-4) Stack S-3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Automatic Molding Machine (E-4) Stack S-3									
7 Manual Molding Machines (C) Stack S-3									
Sand Handling (E-3) Stack S-3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Magnesium Treatment System (Mag) V8 & V9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Subtotal Significant Emission Unit	0.256	0.020	0.450	0.088	0.040	0.591	0.007	1.16	0.256
Insignificant cleaners & solvent <145 gal.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Welding and Cutting	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Storage Tanks and Vessels	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Subtotal Insignificant Activities	0.0000								
Total	0.256	0.020	0.450	0.088	0.040	0.591	0.007	1.16	0.256

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

**Company Name: Akron Foundry, Inc.
Address City IN Zip: 502 Main Street, Akron, Indiana 46910
Permit Number: T 049-18819-00001
Reviewer: Frank P. Castelli
Date: April 16, 2007**

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10*	SO2	NOx	VOC	CO
Core Oil Oven	0.10	0.876	0.001	0.003	0.000	0.044	0.002	0.037
Total	0.10	0.876	0.001	0.003	0.0003	0.044	0.002	0.037

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 13 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

**Company Name: Akron Foundry, Inc.
 Address City IN Zip: 502 Main Street, Akron, Indiana 46910
 Permit Number: T 049-18819-00001
 Reviewer: Frank P. Castelli
 Date: April 16, 2007**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.0750	Hexane 1.8000	Toluene 0.0034
Potential Emission in tons/yr	0.000001	0.000001	0.00003	0.001	0.000001

HAPs - Metals

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total HAPs
Potential Emission in tons/yr	0.0000002	0.0000005	0.000001	0.0000002	0.000001	0.0008

Methodology is the same as page 12.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.