



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 12, 2008

RE: Accurate Castings / 091-25089-00046

FROM: Matthew Stuckey, 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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Indianapolis, Indiana 46204
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Toll Free (800) 451-6027
www.idem.IN.gov

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Accurate Castings, Inc
118 Koomler Drive,
LaPorte, Indiana 46350**

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

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

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

Operation Permit No.: T091-25089-00046	
Original signed by:	Issuance Date: June 12, 2008
Tripurari Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Expiration Date: June 12, 2013

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SECTION A SOURCE SUMMARY

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

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

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

Source Address:	118 Koomler Drive, LaPorte, Indiana 46350
Mailing Address:	P.O.Box 639, LaPorte, IN 46352
General Source Phone Number:	219-362-8531
SIC Code:	3321 and 3366
County Location:	LaPorte
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major 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) iron scrap and charge handling operation, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as A;
- (b) one (1) brass scrap and charge handling operation, with a maximum capacity of 0.85 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting inside the building;
- (c) two (2) iron electric induction melting furnaces, identified as FURN 1 and FURN 2, each with a maximum capacity of 1.00 ton of iron per hour, constructed in 2008, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (d) one (1) brass electric induction melting furnace, identified as FURN 3, with a maximum capacity of 0.85 tons of brass per hour, using a cartridge collector as control, constructed in 1989, and exhausting to two stacks, identified as A3 and Z2;
- (e) one (1) magnesium treatment operation for iron only, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1984, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (f) one (1) enclosed iron pouring station, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as C;
- (g) one (1) enclosed iron cooling tunnel, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to six (6) stacks, identified as E, D, R, X1, X2 and X3;

- (h) one (1) Didion rotary drum for iron shakeout, identified as DIDI1, with a maximum capacity of 4.00 tons of iron per hour, using one (1) dust collector as control, constructed in 1994, and exhausting to one (1) stack, identified as A2;
- (i) one (1) brass pouring station, with a maximum capacity of 1.7 tons of brass per hour, using one (1) dust collector as control, constructed in 1964, and exhausting to one (1) stack, identified as A3;
- (j) one (1) brass cooling tunnel, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to two (2) stacks, identified as I, M, K and L;
- (k) one (1) brass shakeout operation, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to one (1) stack, identified as Z1;
- (l) one (1) Wheelabrator shot blast machine, identified as WHE01, with a maximum capacity of 2.00 tons of iron per hour, using one (1) integral dust collector as control, constructed in 1979, and exhausting to one (1) stack, identified as A2;
- (m) one (1) Brass shot blast machine, identified as Bronco, with a maximum capacity of 0.85 tons of iron per hour, using one (1) integral dust collector as control, constructed in 2003, and exhausting to one (1) stack, identified as A6;
- (n) One (1) sand handling operation for iron and brass, constructed in 2007, with maximum capacity of 2.85 tons of sand per hour, controlled by four (4) dust collectors, identified as A5, A6, A7 and A8.
- (o) fifteen (15) molding machines, identified as MOLD MACH 1 - MOLD MACH 15, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to six (6) stacks, identified as G, H, J1, J2, S2 and T;
- (p) twelve (12) core machines, identified as COR01 - COR10, and CORA1 and CORA2, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to five (5) stacks, identified as U, V, W1, W2 and W3;
- (q) Six (6) sand storage silos, known as Silo 1 through Silo 6 exhausting outside the building, installed in 1964, capacity:75, 75, 55, 50, 25 and 65 tons respectively.

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

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

- (a) One (1) cutoff saw, exhausting inside the building, constructed in 1964, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2).
- (b) One (1) cutoff saw, exhausting inside the building, constructed in 2006, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2).
- (c) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2].

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T091-25089-00046, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (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) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

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

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

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

Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting 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 T091-25089-00046 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, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

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

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

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

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

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

Request for renewal shall be submitted to:

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

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

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [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) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

(c) 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).

(d) 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.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or 326 IAC 10-4.

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

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

- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.

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 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

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

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

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

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

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

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

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

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

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

All required notifications shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

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

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

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

- (a) Pursuant to 326 IAC 2-6-3(b)(1), starting 2004 and every three (3), the Permittee shall submit by July 1 emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring

sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular

operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.

- (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
- (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
- (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) one (1) iron scrap and charge handling operation, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as A;
- (b) one (1) brass scrap and charge handling operation, with a maximum capacity of 0.85 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting inside the building;
- (c) two (2) iron electric induction melting furnaces, identified as FURN 1 and FURN 2, each with a maximum capacity of 1.00 ton of iron per hour, constructed in 2008, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (d) one (1) brass electric induction melting furnace, identified as FURN 3, with a maximum capacity of 0.85 tons of brass per hour, using a cartridge collector as control, constructed in 1989, and exhausting to two stacks, identified as A3 and Z2;
- (e) one (1) magnesium treatment operation for iron only, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1984, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (f) one (1) enclosed iron pouring station, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as C;
- (g) one (1) enclosed iron cooling tunnel, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to six (6) stacks, identified as E, D, R, X1, X2 and X3;
- (h) one (1) Didion rotary drum for iron shakeout, identified as DID11, with a maximum capacity of 2.00 tons of iron per hour, using one (1) dust collector as control, constructed in 1994, and exhausting to one (1) stack, identified as A2;
- (i) one (1) brass pouring station, with a maximum capacity of 1.7 tons of brass per hour, using one (1) dust collector as control, constructed in 1964, and exhausting to one (1) stacks, identified as A3;
- (j) one (1) brass cooling tunnel, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to two (2) stacks, identified as I, M, K and L;
- (k) one (1) brass shakeout operation, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to one (1) stack, identified as Z1;
- (l) one (1) Wheelabrator shot blast machine, identified as WHE01, with a maximum capacity of 2.00 tons of iron per hour, using one (1) integral dust collector as control, constructed in 1979, and exhausting to one (1) stack, identified as A2;

Emissions Unit Description:

- (m) one (1) Brass shot blast machine, identified as Bronco, with a maximum capacity of 0.85 tons of iron per hour, using one (1) integral dust collector as control, constructed in 2003, and exhausting to one (1) stack, identified as A6;
- (n) One (1) sand handling operation for iron and brass, constructed in 2007, with maximum capacity of 2.85 tons of sand per hour, controlled by four (4) dust collectors, identified as A5, A6, A7 and A8.
- (o) fifteen (15) molding machines, identified as MOLD MACH 1 - MOLD MACH 15, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to six (6) stacks, identified as G, H, J1, J2, S2 and T;
- (p) twelve (12) core machines, identified as COR01 - COR10, and CORA1 and CORA2, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to five (5) stacks, identified as U, V, W1, W2 and W3;
- (q) Six (6) sand storage silos, known as Silo 1 through Silo 6, exhausting outside the building, installed in 1964, capacity:75, 75, 55, 50, 25 and 65 tons respectively.

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

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

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

The Permittee shall comply with the following:

- (a) The total PM₁₀ emissions from the Brass melting, identified as FURN 3 and Brass pouring constructed in 1989, shall not exceed 3.40 pounds per hour. Compliance with the above limit will limit PM₁₀ emissions from the Brass melting, identified as FURN 3 and Brass pouring to less than 15 tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the 1989 modification.
- (b) The total PM and PM₁₀ emissions from the Didion iron shakeout constructed in 1994, shall not exceed 5.70 and 3.40 pounds per hour, respectively. Compliance with the above limit will limit PM and PM₁₀ emissions from Didion iron shakeout to less than 25 and 15 tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the 1994 modification.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the emission units, shall not exceed the emission limit shown in the table below:

Operation	Process weight (tons/hr)	Allowable Limits (lbs/hr)
Brass scrap charge Handling	0.85	3.68

Operation	Process weight (tons/hr)	Allowable Limits (lbs/hr)
Brass Pouring	1.7	5.85
Brass Cooling	1.7	5.85
Brass shakeout	1.7	5.85
Iron and Brass Sand Handling	2.85	8.27
Iron Scrap and Charge handling	2.0	6.52
Iron Melting (FURN 1)	1.0	4.10
Iron Melting (FURN 2)	1.0	4.10
Iron Pouring	4.0	10.38
Iron Cooling	4.0	10.38
Didion Iron Shakeout	4.0	10.38
Wheelabrator Shot Blast	2.0	6.52
Magnesium Treatment	2.0	6.52
Brass shot Blast	0.85	3.68
Brass Melting (FURN 3)	0.85	3.68

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

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

Where:

P = process weight in tons/hr; and
 E = rate of emission in pounds per hour.

Compliance Determination Requirements

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

D.1.4 Particulate Matter (PM)

-
- (a) In order to comply with Conditions D.1.1 and D.1.2, the dust collector shall be in operation at all times when the Didion shakeout, Brass electric induction melting furnace (FURN 3), Brass pouring, Wheelabrator shot blast and Brass shot blast process 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 included 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 2-7-5(1)][326 IAC 2-7-6(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the Didion iron shakeout and brass electric induction melting furnace, (A2, A3, and Z2) stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the pressure drop across the Didion rotary shakeout and Brass electric induction furnace (FURN 3) dust collectors used in conjunction with the Didion rotary shakeout and Brass electric induction furnace (FURN 3) at least once per day when the Didion rotary shakeout and Brass electric induction furnace (FURN 3) are in operation. When for any one reading, the pressure drop across the baghouses are outside the normal range of 1.0 and 5.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for these units shall contain troubleshooting contingency and corrective actions of the above mentioned ranges for any one reading.

The instrument used for determining the pressure shall comply with condition C.12 - Instrument Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 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.
- (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.

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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the Didion iron shakeout and brass electric induction melting furnace 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 a visible emission notation, (e.g. the process did not operate that day).

- (b) To document compliance with Condition D.1.6 the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the Didion rotary shakeout and Brass electric induction furnace (FURN 3). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

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

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities

- (a) One (1) cutoff saw, exhausting inside the building, constructed in 1964, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2).
- (b) One (1) cutoff saw, exhausting inside the building, constructed in 2006, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2).

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

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

D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions from the insignificant, two (2) cut-off saws shall not exceed 8.27 pounds per hour, each, when operating at a process weight rate of 2.85 tons per hour, each:

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

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

Where:

P = process weight in tons/hr and
E = rate of emission in pounds per hour.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities

- (a) Degreasing operations, constructed prior to 1991, that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2].

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

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

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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

Source Name: Accurate Castings, Inc
Source Address: 118 Koomler Drive,, LaPorte, Indiana 46350
Mailing Address: P.O.Box 639, LaPorte, IN 46352
Part 70 Permit No.: T091-25089-00046

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Accurate Castings, Inc
Source Address: 118 Koomler Drive,, LaPorte, Indiana 46350
Mailing Address: P.O.Box 639, LaPorte, IN 46352
Part 70 Permit No.: T091-25089-00046

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Source Name: Accurate Castings, Inc
 Source Address: 118 Koomler Drive,, LaPorte, Indiana 46350
 Mailing Address: P.O.Box 639, LaPorte, IN 46352
 Part 70 Permit No.: T091-25089-00046

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

Source Background and Description

Source Name:	Accurate Castings, Inc.
Source Location:	118 Koomler Drive, LaPorte, Indiana 46350
County:	LaPorte
SIC Code:	3321 and 3369
Permit No.:	091-25089-00046
Permit Reviewer:	Josiah Balogun

The Office of Air Quality (OAQ) has reviewed the proposed Part 70 operating permit application from Accurate Castings, Inc relating to the operation of a gray iron and brass foundry.

History

On August 1, 2007, Accurate Castings, Inc submitted an application to the OAQ requesting a transition to a Title V permit from their FESOP, issued on March 19, 1997. An application was submitted by Accurate Castings, Inc on March 13, 2008, relating to the replacement of their two (2) existing iron electric induction furnaces, identified as FURN 1 and 2. This replacement will reduce escalating maintenance cost at the facility. This modification was performed through MSM 091-26259-00046, issued on March 31, 2008.

Permitted Emission Units and Pollution Control Equipment

- (a) one (1) iron scrap and charge handling operation, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as A;
- (b) one (1) brass scrap and charge handling operation, with a maximum capacity of 0.85 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting inside the building;
- (c) two (2) iron electric induction melting furnaces, identified as FURN 1 and FURN 2, each with a maximum capacity of 1.00 ton of iron per hour, constructed in 2008, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (d) one (1) brass electric induction melting furnace, identified as FURN 3, with a maximum capacity of 0.85 tons of brass per hour, using a cartridge collector as control, constructed in 1989, and exhausting to two stacks, identified as A3 and Z2;
- (e) one (1) magnesium treatment operation for iron only, with a maximum capacity of 2.00 tons of iron per hour, constructed in 1984, with uncontrolled emissions exhausting to two (2) stacks, identified as B and B2;
- (f) one (1) enclosed iron pouring station, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to one (1) stack, identified as C;
- (g) one (1) enclosed iron cooling tunnel, with a maximum capacity of 4.00 tons of iron per hour, constructed in 1975, with uncontrolled emissions exhausting to six (6) stacks, identified as E, D, R, X1, X2 and X3;

- (h) one (1) Didion rotary drum for iron shakeout, identified as DIDI1, with a maximum capacity of 4.00 tons of iron per hour, using one (1) dust collector as control, constructed in 1994, and exhausting to one (1) stack, identified as A2;
- (i) one (1) brass pouring station, with a maximum capacity of 1.7 tons of brass per hour, using one (1) dust collector as control, constructed in 1964, and exhausting to one (1) stack, identified as A3;
- (j) one (1) brass cooling tunnel, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to two (2) stacks, identified as I, M, K and L;
- (k) one (1) brass shakeout operation, with a maximum capacity of 1.7 tons of brass per hour, constructed in 1964, with uncontrolled emissions exhausting to one (1) stack, identified as Z1;
- (l) one (1) Wheelabrator shot blast machine, identified as WHE01, with a maximum capacity of 2.00 tons of iron per hour, using one (1) integral dust collector as control, constructed in 1979, and exhausting to one (1) stack, identified as A2;
- (m) one (1) Brass shot blast machine, identified as Bronco, with a maximum capacity of 0.85 tons of iron per hour, using one (1) integral dust collector as control, constructed in 2003, and exhausting to one (1) stack, identified as A6;
- (n) One (1) sand handling operation for iron and brass, constructed in 2007, with maximum capacity of 2.85 tons of sand per hour, controlled by four (4) dust collectors, identified as A5, A6, A7 and A8.
- (o) fifteen (15) molding machines, identified as MOLD MACH 1 - MOLD MACH 15, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to six (6) stacks, identified as G, H, J1, J2, S2 and T;
- (p) twelve (12) core machines, identified as COR01 - COR10, and CORA1 and CORA2, with a maximum capacity of 2.85 tons of metal per hour, constructed on various dates from 1964 through 2007, with uncontrolled emissions exhausting to five (5) stacks, identified as U, V, W1, W2 and W3;
- (q) Six (6) sand storage silos, known as Silo 1 through Silo 6, exhausting outside the building, installed in 1964, capacity: 75, 75, 55, 50, 25 and 65 tons respectively.

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) shot blast machine, known as brass Wheelabrator, equipped with a baghouse, known as A2, for PM control, with a gas flow rate of 2,750 acfm, an outlet grain loading of 0.01 grain per dry standard cubic foot, exhaust temperature of 70 degrees Fahrenheit, exhausting inside the building, installed in 1964, capacity: 1.2 tons of iron and/or brass per hour (326 IAC 6-3-2).

Insignificant Activities

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour rated at a total of 27.275 million British thermal units per hour. There are currently no boilers. These natural gas-fired combustion sources consist of:
 - (1) One (1) west office space heater, rated at 0.150 million British thermal units per hour.
 - (2) One (1) east office space heater, rated at 0.100 million British thermal units per hour.
 - (3) One (1) breakroom space heater, rated at 0.138 million British thermal units per hour.
 - (4) One (1) bathroom space heater, rated at 0.132 million British thermal units per hour.
 - (5) One (1) pattern shop space heater, rated at 0.400 million British thermal units per hour.
 - (6) One (1) shipping/receiving room space heater, rated at 0.400 million British thermal units per hour.
 - (7) One (1) core room space heater, rated at 0.200 million British thermal units per hour.
 - (8) One (1) maintenance room space heater, rated at 0.300 million British thermal units per hour.
 - (9) One (1) air compressor room space heater, rated at 0.100 million British thermal units per hour.
 - (10) One (1) Hutch #6 heater, rated at 0.165 million British thermal units per hour.
 - (11) One (1) brass shakeout HOTTOT heater, rated at 0.090 million British thermal units per hour.
 - (12) One (1) supervisor office HOTTOT heater, rated at 0.090 million British thermal units per hour.
 - (13) One (1) Hutch #12 HOTTOT heater, rated at 0.090 million British thermal units per hour.
 - (14) One (1) iron loading line HOTTOT heater, rated at 0.090 million British thermal units per hour.
 - (15) One (1) iron preheat HOTTOT heater, rated at 0.090 million British thermal units per hour.
 - (16) One (1) iron shakeout HOTTOT heater, rated at 0.090 million British thermal units per hour.

- (17) One (1) Rapid Air make-up unit rated at 4.400 million British thermal units per hour.
- (18) Fifteen (15) Hutch heaters rated at 1.00 million British thermal units per hour each.
- (19) One (1) Bananza make up air unit rated at 0.75 million British thermal units per hour;
- (20) One (1) preheater, rated at 2.400 million British thermal units per hour.
- (21) Three (3) ladle heaters, rated at 0.400 million British thermal units per hour each.
- (22) Five (5) #43 core machines, rated at 0.150 million British thermal units per hour each.
- (23) Four (4) medium core machines, rated at 0.250 million British thermal units per hour each.
- (24) One (1) large core machine, rated at 0.400 million British thermal units per hour.
- (b) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (c) Heat exchanger cleaning and repair.
- (d) Paved and unpaved roads and parking lots with public access.
- (e) One (1) cutoff saw, exhausting inside the building, constructed in 1964, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2);
- (f) One (1) cutoff saw, exhausting inside the building, constructed in 2006, with maximum capacity of 2.85 tons of iron and brass per hour.(326 IAC 6-3-2);
- (g) Maintenance welding activities;
- (h) Wet Cooling Towers;
- (i) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2]; and
- (j) Truck Loading and Unloading.

Existing Approvals

Since the issuance of the FESOP 091-6483-00046 on March 19, 1997, transiting to a Title V the source has constructed or has been operating under the following approvals as well:

- (a) Review Request No. 091-17338-00046 issued on July 29, 2003;
- (b) Exemption No. 091-21161-00046 issued on June 24, 2005; and
- (c) Administrative Amendment No. 091-25490-00046, issued on December 14, 2007.
- (d) Minor Source Modification No. 091-26259-00046, issued on March 31, 2008.

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.

Air Pollution Control Justification as an Integral Part of the Process

The applicant has submitted the following justification such that the air pollution control equipment, i.e. dust collector be considered as an integral part of the process:

The dust collector meets the following criteria which the IDEM utilizes to evaluate whether the control equipment is "integral to the system".

- (a) The process can not operate without the control equipment;
- (b) The control equipment serves a primary purpose other than pollution control; and
- (c) The control equipment has an overwhelming positive net economic effect.

The process can not operate without the control equipment because the shot blast system is designed and built to function with the dust collector serving as the mechanism to maintain negative pressure at the machine inlet points and to create the air curtain necessary to separate the sand and dust from the shot curtain prior to cleaning the casting. The manufacturer did not design the blasting system to utilize a separate auxiliary fan. The dust collector pulls the less dense, yet abrasive, sand and dust material out of the shot curtain. This allows only the shot to re-enter the cleaning chamber of the machine. The sand, by its abrasive nature, would damage the castings if it were to re-enter the cleaning chamber. If that same sand and dust, again abrasive by nature, were to go through the fan wheel without being stopped by the dust collector, it would quickly destroy the fan wheel.

The control equipment serves a primary purpose other than pollution control since the dust collector maintains the negative pressure at the machine's inlet points and creates the air curtain necessary to separate the sand and dust from the shot curtain prior to cleaning the casting. Another illustration that this type of control equipment has been serving a primary purpose other than pollution control is the fact that shot blast manufacturers have been providing these machines with dust collection since the 1930s prior to the promulgation of any air permitting regulations.

The shot blast system is designed to continuously recycle the shot because the dust collector removes the sand and dust from the shot curtain. Accurate Castings, Inc observes a significant cost savings from separating the sand/dust from the shot in order to allow the shot to be reused. Currently, Accurate Castings, Inc spends approximately \$375 per ton of shot. By recycling the shot within the system, Accurate Castings, Inc purchases approximately 17 tons of shot per year. By utilizing the throw rate of the blasting system, Accurate Castings, Inc determined that the source would have to purchase approximately 91,980 tons of shot per year if the system had not been designed to recycle the shot. This equates to a cost savings of \$34,486,125 per year. In addition, recycling the shot also decreases the quantity of waste which would need to be disposed of from the blasting operations if the sand, dust and shot were not segregated. The reduction in disposal and purchasing costs has an overwhelming positive net economic effect.

Two items of concern for the IDEM were whether the shot blasting system could operate properly without the cartridges in the dust collector and whether the shot blasting system could operate properly if one or more of the cartridges in the dust collector were damaged. The answer to both of these questions is a resounding "no". The shot blasting system must maintain a pressure drop of 1 to 7 inches of water to operate properly. The cartridges in the dust collector are extremely important for maintaining the air curtain in order to separate the sand and dust from the shot curtain prior to cleaning the casting. The shot blasting system has been manufactured to operate properly by utilizing the cartridges. The air curtain is extremely sensitive and a minor change (or a major change in the case of utilizing no cartridges in the dust

collector) would disrupt the entire operation of the blasting unit. In order to clean the castings properly without causing damage, the air curtain must be maintained according to the manufacturer's specifications. Otherwise, the casting produced will be damaged or not cleaned to the customer's satisfaction. Accurate Castings, Inc cannot sell a defected casting therefore it is vital that the blasting system is operated according to the manufacturer's specification. Accurate Castings, Inc will routinely perform maintenance inspections of the dust collector to ensure that the cartridges are not damaged. As with any emission unit, unforeseen malfunctions can occur. This possibility does not eliminate the dust collector from being considered an integral part of the system. If a malfunction occurs, the operator will follow the necessary compliance response steps to determine the source of the deviation.

IDEM, OAQ has evaluated the justifications and agreed that the air pollution control equipment will be considered as an integral part of the process. Therefore, the permitting level will be determined using the potential to emit after the air pollution control equipment. Operating conditions in the proposed permit will specify that this air pollution control equipment shall operate at all times when the process is in operation.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in La Porte County

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective November 15, 1990, for the 1-hour standard which was revoked effective June 15, 2005.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the

National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. La Porte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**
 Laporte County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) **Other Criteria Pollutants**
 Laporte County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	151.5
PM ₁₀	112.4
SO ₂	0.5
VOC	23.4
CO	320.1
NO _x	12.7

HAPs	tons/year
Chromium	less than 10
Manganese	less than 10
Nickel	less than 10
Arsenic	less than 10
Cadmium	less than 10
Selenium	less than 10
Cobalt	less than 10
Benzene	less than 10
Dichlorobenzene	less than 10
Formaldehyde	less than 10
Hexane	less than 10
Toluene	less than 10
Lead	less than 10
Total	Less than 25

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and CO is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.
- (d) 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.

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.

Emission Unit	Potential to Emit						
	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO _x (tons/yr)	HAPs (tons/yr)
Brass scrap charge Handling	2.23	1.34	0	0	0	0	0
Iron Melting (FURN 1 and FURN 2)	7.88	7.53	0	0	0	0	0.28
Magnesium Treatment	15.77	15.77	0	0	0	0	0
Brass Melting (FURN 3) and Brass Pouring	13.37	14.89	0	0	92.33	0	0.12
Brass Cooling	5.21	5.21	0.07	0.52		0.04	0.02
Brass shakeout	11.91	8.34	0	4.47		0	0.06

Emission Unit	Potential to Emit						
	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO _x (tons/yr)	HAPs (tons/yr)
Two (2) Cut-off Saws	0.12	0.06	0	0	0	0	0
Iron and Brass Sand Handling	44.94	6.74	0	0	0	0	0
Grinding and Machining	0.45	0.45	0	0	0	0	0
SMAW Welding	0.08	0.08	0	0	0	0	0.05
Wet Cooling Towers	0.93	0.93	0	0	0	0	0
Iron Scrap Charge handling and preheater	5.26	3.15	0	0	0	0	0.09
Iron Pouring	13.49	21.02	0.18	1.23	65.17	0.09	0.04
Iron Cooling			0.18	1.23	104.28	0.09	0.04
Didion Iron Shakeout	24.97	14.89	0	10.51	47.8	0	0.14
Wheelabrator Shot Blast	1.03	1.03	0	0	0	0	0.23
Brass shot Blast	0.64	0.64	0	0	0	0	0.1
Shell Core and Mold Making	0	0	0	3.75	0	0	3.74
Natural gas combustion	0.24	0.95	0.08	0.69	10.5	12.5	0.24
Two (2) Degreasing Units	0	0	0	0.97	0	0	0.002
Truck Loading and Unloading	0.32	0.32	0	0	0	0	0
Organic HAPs from pouring, cooling and shakeout operation	0	0	0	0	0	0	6.09
Total Emissions	148.4	102.6	0.5	23.4	320.1	12.7	Single <10 Total <25

- (a) This existing stationary source is major for PSD because the emissions of at least one regulated pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.

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

Federal Rule Applicability

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

The statement below is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

All of the emission units except iron Pouring, Cooling and Didion iron shakeout (CO) have the potential to emit regulated pollutants (uncontrolled) less than the major source thresholds.

Iron Pouring, Cooling and Didion iron Shakeout CO emissions are more than the major source threshold but the emission units have no control device and no emission limits.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the existing units as part of this Part 70 permit renewal.

- (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) There are no 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)

This source is one of the 28 listed source categories and has potential to emit of at least one attainment pollutant greater than 100 tons per year before August 7, 1977. This source was a major source pursuant to 326 IAC 2-2 (PSD), prior to August 7, 1977.

1979 Modification

The Wheelabrator Shot blast, constructed in 1979 has controlled PM and PM₁₀ emissions less than 25 and 15 tons per year respectively. The dust collector controlling PM and PM₁₀ emissions from this process has been determined to be integral by IDEM. Therefore, the requirements of 326 IAC 2-2 are not applicable to the 1979 modification.

1984 Modification

The Magnesium Treatment, constructed in 1984, has uncontrolled PM emissions less than 25 tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable to the 1984 modification.

1989 Modification

The Brass electric induction melting furnace, identified as Furnace 3 and Brass cooling, constructed in 1989 have uncontrolled PM₁₀ emissions of greater than 15 tons per year. The PM₁₀ emissions from the Brass electric induction melting furnace, identified as Furnace 3 and brass pouring shall not exceed 3.40 pounds per hour. Compliance with the above limit will limit the PM₁₀ emissions to less than 15 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 1989 modification.

1994 Modification

The Didion iron Shakeout, constructed in 1994 has uncontrolled PM and PM₁₀ emissions of greater than 25 and 15 tons per year, respectively. The PM and PM₁₀ emissions from the Didion iron Shakeout shall not exceed 5.70 and 3.40 pounds per hour, respectively. Compliance with the limit above will limit the PM and PM₁₀ emissions to less than 25 and 15 tons per year, respectively and render 326 IAC 2-2 not applicable to the 1994 modification.

The carbon monoxide (CO) emissions from the Didion iron shakeout, constructed in 1994 has uncontrolled CO emissions less than the 100 tons per year. Therefore, 326 IAC 2-2 is not applicable to the 1994 modification for CO emissions.

2003 Modification

The Brass Shot blast, constructed in 2003 has controlled PM and PM₁₀ emissions less than 25 and 15 tons per year, respectively. The dust collector controlling PM and PM₁₀ emissions from this process has been determined to be integral by IDEM Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to the 2003 modification.

2006 Modification

The cut-off saw, constructed in 2006 has uncontrolled PM and PM₁₀ emissions less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to the 2006 modification.

2008 Modification

The iron electric induction melting furnaces, identified as Furnace 1 and 2 constructed in 2008, have uncontrolled PM and PM₁₀ emissions less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 are not applicable to the 2008 modification.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2004 and every 3 years thereafter. Since this Title V will be issued in 2008, the next emission statement for this source must be submitted by July 1, 2011. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions from the insignificant, two (2) cut-off saws shall not exceed 8.27 pounds per hour, each, when operating at a process weight rate of 2.85 tons per hour, each:

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

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

Where:

- P = process weight in tons/hr and
- E = rate of emission in pounds per hour.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (e), the allowable particulate matter (PM) emissions, from the following emission units shall not exceed the PM limits as specified in the table below:

Operation	Process weight (tons/hr)	Allowable Limits (lbs/hr)
Brass scrap charge Handling	0.85	3.68
Brass Pouring	1.7	5.85
Brass Cooling	1.7	5.85
Brass shakeout	1.7	5.85
Iron and Brass Sand Handling	2.85	8.27
Iron Scrap and Charge handling	2.0	6.52
Iron Melting (FURN 1)	1.0	4.10
Iron Melting (FURN 2)	1.0	4.10
Iron Pouring	4.0	10.38
Iron Cooling	4.0	10.38
Didion Iron Shakeout	4.0	10.38
Wheelabrator Shot Blast	2.0	6.52
Magnesium Treatment	2.0	6.52
Brass shot Blast	0.85	3.68

Operation	Process weight (tons/hr)	Allowable Limits (lbs/hr)
Brass Melting (FURN 3)	0.85	3.68

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:

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

The dust collectors shall be in operation at all times the emission units are in operation, in order to comply with this limit.

Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Testing Requirements

The dust collector for PM and PM10 control on the Didion Rotary iron shakeout and Brass electric induction melting operations only needs to operate at a minimum overall efficiency of 25% in order to demonstrate compliance with 326 IAC 6-3-2. The dust collector is estimated to have an overall control efficiency of 99% and 74.25 % respectively. Therefore, PM and PM10 shall not be subject to the testing requirements.

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 compliance monitoring requirements applicable to this source are as follows:

(a) Dust Collector

Facilities	Control	Parameter	Frequency	Range	Excursions and Exceedances
Didion Iron Shakeout	Dust Collector	Water Pressure Drop	Daily	1 to 5 inches	Response Steps
		Visible Emissions		Normal-Abnormal	
Brass Electric Induction Furnace 3	Dust Collector	Water Pressure Drop	Daily	1 to 5 inches	Response Steps
		Visible Emissions		Normal-Abnormal	

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit 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 August 1, 2007.

Conclusion

The operation of this brass and gray iron foundry shall be subject to the conditions of the attached Part 70 Operating Permit No. 091-25089-00046.

Appendix A: Emissions Calculations

Emission Summary

Source Name: Accurate Castings, Inc
Source Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Uncontrolled Potential Emissions

	Year of Construction	PM (tons/yr)	PM₁₀ (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Brass Scrap Charge handling and preheater	1964	2.23	1.34	0	0	0	0	0
Brass Melting (FURN 3) and Brass Pouring	1989	13.37	19.88	0	0		0	0.12
Brass Cooling	1964	5.21	5.21	0.07	0.52		0.04	0.02
Brass Shakeout	1964	11.91	8.34	0	4.47	92.33	0	0.06
Two (2) Cut-Off Saws	1964	0.12	0.06	0	0	0	0	0
Iron and Brass Sand handling	1964	44.94	6.74	0	0	0	0	0
SMAW Welding	1964	0.08	0.08	0	0	0	0	0.05
Wet Cooling Towers	1964	0.93	0.93	0	0	0	0	0
Iron Scrap Charge Handling and preheater	1975	5.26	3.15	0	0	0	0	0.09
Iron melting (FURN 1 and FURN 2)	2008	7.88	7.53	0	0	0	0	0.28
Iron Pouring	1975			0.18	1.23	65.17	0.09	0.04
Iron Cooling	1975	13.49	21.02	0.18	1.23	104.28	0.09	0.04
Didion Iron Shakeout	1994	28.03	19.62	0	10.51	47.8	0	0.14
Wheelabrator Shot Blast	1979	1.03	1.03	0	0	0	0	0.23
Magnesium Treatment	1984	15.77	15.77	0	0	0	0	0
Brass Shot Blast	2003	0.64	0.64	0	0	0	0	0.1
Shell Core and Mold Making		0	0	0	3.75	0	0	3.74
Natural gas combustion		0.24	0.95	0.08	0.69	10.5	12.5	0.24
2 Degreasing Units		0	0	0	0.97	0	0	0.002
Truck loading and Unloading		0.32	0.063	0	0	0	0	0
Organic HAPs from pouring, cooling and shakeout operations		0	0	0	0	0	0	6.09
Total Emissions		151.5	112.4	0.5	23.4	320.1	12.7	11.2

Note: Iron Pouring, Iron Cooling and Iron Shakeout CO emissions were divided based on the BACT analysis emission factors factors from pouring, cooling and shakeout derived by IDEM from other similar sources.

Appendix A: Emissions Calculations

Emission Summary

Source Name: Accurate Castings, Inc
 Source Location: 118 Koomler Drive, LaPorte, IN 46350
 Permit Number: T091-25089-00046
 Permit Reviewer: Josiah Balogun
 Date: 25-Feb-2008

Limited Potential Emissions

Emission Unit	Year of Construction	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Brass Scrap Charge handling and preheater	1964	2.23	1.34	0	0	0	0	0
Brass Melting (FURN 3) and Brass Pouring	1989	13.37	14.89	0	0	92.33	0	0.12
Brass Cooling	1964	5.21	5.21	0.07	0.52		0.04	0.02
Brass Shakeout	1964	11.91	8.34	0	4.47		0	0.06
Two (2) Cut-Off Saws	1964	0.12	0.06	0	0	0	0	0
Iron and Brass Sand handling	1964	44.94	6.74	0	0	0	0	0
SMAW Welding	1964	0.08	0.08	0	0	0	0	0.05
Wet Cooling Towers	1964	0.93	0.93	0	0	0	0	0
Iron Scrap Charge Handling and preheater	1975	5.26	3.15	0	0	0	0	0.09
Iron melting (FURN 1 and FURN 2)	2008	7.88	7.53	0	0	0	0	0.28
Iron Pouring	1975	13.49	21.02	0.18	1.23	65.17	0.09	0.04
Iron Cooling	1975			0.18	1.23	104.28	0.09	0.04
Didion Iron Shakeout	1994	24.96	14.89	0	10.51	47.8	0	0.14
Wheelabrator Shot Blast	1979	1.03	1.03	0	0	0	0	0.23
Magnesium Treatment	1984	15.77	15.77	0	0	0	0	0
Brass Shot Blast	2003	0.64	0.64	0	0	0	0	0.1
Shell Core and Mold Making		0	0	0	3.75	0	0	3.74
Natural gas combustion		0.24	0.95	0.08	0.69	10.5	12.5	0.24
2 Degreasing Units		0	0	0	0.97	0	0	0.002
Truck loading and Unloading		0.32	0.063	0	0	0	0	0
Organic HAPs from pouring, cooling and shakeout operations		0	0	0	0	0	0	6.09
Total Emissions		148.4	102.6	0.5	23.4	320.1	12.7	11.2

Appendix A: Emissions Calculations

Emission Summary

Source Name: Accurate Castings, Inc
 Source Location: 118 Koomler Drive, LaPorte, IN 46350
 Permit Number: T091-25089-00046
 Permit Reviewer: Josiah Balogun
 Date: 25-Feb-2008

Controlled Potential Emissions

Emission Unit	Year of Construction	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Brass Scrap Charge handling and preheater	1964	2.23	1.34	0	0	0	0	0
Brass Melting (FURN 3) and Brass Pouring	1989	3.44	5.12	0	0	92.33	0	0.12
Brass Cooling	1964	5.21	5.21	0.07	0.52		0.04	0.02
Brass Shakeout	1964	11.91	8.34	0	4.47		0	0.06
Two (2) Cut-Off Saws	1964	0.12	0.06	0	0	0	0	0
Iron and Brass Sand handling	1964	13.8	2.07	0	0	0	0	0
SMAW Welding	1964	0.08	0.08	0	0	0	0	0.05
Wet Cooling Towers	1964	0.93	0.93	0	0	0	0	0
Iron Scrap Charge Handling and preheater	1975	5.26	3.15	0	0	0	0	0.09
Iron melting (FURN 1 and FURN 2)	2008	7.88	7.53	0	0	0	0	0.28
Iron Pouring	1975	13.49	21.02	0.18	1.23	65.17	0.09	0.04
Iron Cooling	1975			0.18	1.23	104.28	0.09	0.04
Didion Iron Shakeout	1994	4.44	3.11	0	10.51	47.8	0	0.14
Wheelabrator Shot Blast	1979	1.03	1.03	0	0	0	0	0.23
Magnesium Treatment	1984	15.77	15.77	0	0	0	0	0
Brass Shot Blast	2003	0.64	0.64	0	0	0	0	0.1
Shell Core and Mold Making		0	0	0	3.75	0	0	3.74
Natural gas combustion		0.24	0.95	0.08	0.69	10.5	12.5	0.24
2 Degreasing Units		0	0	0	0.97	0	0	0.002
Truck loading and Unloading		0.32	0.06	0	0	0	0	0
Organic HAPs from pouring, cooling and shakeout operations		0	0	0	0	0	0	6.09
Total Emissions		86.8	76.4	0.5	23.4	320.1	12.7	11.2

Appendix A: Emission Calculations
Iron Scrap Charge handling and preheater
Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons /hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Iron Scrap Charge handling and preheater	2	PM	0.60	5.26	5.26	None	None
		PM-10	0.36	3.15	3.15	None	None
		SO2	0.00	0.00	0.00	None	None
		NOx	0.00	0.00	0.00	None	None
		VOC	0.00	0.00	0.00	None	None
		CO	0.00	0.00	0.00	None	None
		chromium	0.00023	0.002	0.002	None	None
		nickel	0.00040	0.004	0.004	None	None
		arsenic	0.00008	0.001	0.001	None	None
		cadmium	0.00004	0.000	0.000	None	None
		selenium	0.00001	0.000	0.000	None	None
		Lead	0.00900	0.079	0.079	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

EPA SCC# 3-04-003-15 AP -42 Ch 12.10:

Appendix A: Emission Calculations
Brass Scrap & Charge handling and preheater
Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number T091-25089-00046
Permit Reviewer: Josiah Balogun
Date 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Brass Scrap charge handling and preheater	0.85	PM	0.6	2.23	2.23	none	none
		PM-10	0.36	1.34	1.34	none	none
		SO2	0.00	0.00	0.00	none	none
		NOx	0.00	0.00	0.00	none	none
		VOC	0.00	0.00	0.00	none	none
		CO	0.00	0.00	0.00	none	none

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.23 SCC# 3-04-003-15 AP-42 CH 12.10

Appendix A: Emission Calculations

Iron melting (FURN 1 and 2)

Company Name: Accurate Castings, Inc

Plant Location: 118 Koomler Drive, LaPorte, IN 46350

Permit Number: T091-25089-00046

Permit Reviewer: Josiah Balogun

Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Iron melting (FURN 1 and 2)	2.0	PM	0.90	7.88	7.88	None	None
		PM-10	0.86	7.53	7.53	None	None
		SO2	0.00	0.00	0.00	None	None
		NOx	0.00	0.00	0.00	None	None
		VOC	0.00	0.00	0.00	None	None
		CO	0.00	0.00	0.00	None	None
		chromium	0.00023	0.002	0.002	None	None
		manganese	0.02	0.197	0.197	None	None
		nickel	0.00040	0.004	0.004	None	None
		arsenic	0.00008	0.001	0.001	None	None
		cadmium	0.00004	0.000	0.000	None	None
		selenium	0.00001	0.000	0.000	None	None
		Lead	0.00900	0.079	0.079	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-03

Appendix A: Emission Calculations

Magnesium Treatment

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Magnesium Treatment	2.0	PM	1.8	15.77	15.77	None	None
		PM-10	1.8	15.77	15.77	None	None
		SO2	0	0.00	0.00	None	None
		NOx	0	0.00	0.00	None	None
		VOC	0	0.00	0.00	None	None
		CO	0	0.00	0.00	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

EPA SCC# 3-04-003-21 Fire 6.25

Appendix A: Emission Calculations

Iron Pouring

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Iron Pouring	2.0	PM	1.54	13.49	13.49	None	None
		PM-10	2.40	21.02	21.02	None	None
		SO2	0.02	0.18	0.18	None	None
		NOx	0.01	0.09	0.09	None	None
		VOC	0.14	1.23	1.23	None	None
		CO	7.44	65.17	65.17	None	None
		chromium	0.00230	0.0201	0.0201	None	None
		nickel	0.00040	0.0035	0.0035	None	None
		arsenic	0.00008	0.0007	0.0007	None	None
		cadmium	0.00004	0.0004	0.0004	None	None
		selenium	0.00001	0.0001	0.0001	None	None
		Lead	0.00200	0.0175	0.0175	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

PM/PM10 Emission Factor based on 2002 stack test for iron pouring and cooling with a safety factor of 10%

SO2, VOC and NOx emission factor from EPA SCC# 3-04-003-20 Fire 6.25

CO Emission Factor based on 2006 stack test.

Appendix A: Emission Calculations

Iron Cooling

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Iron Cooling	2.0	PM	Included in Iron Pouring Calculations			None	None
		PM-10				None	None
		SO2	0.02	0.18	0.18	None	None
		NOx	0.01	0.09	0.09	None	None
		VOC	0.14	1.23	1.23	None	None
		CO	11.904	104.28	104.28	None	None
		Chromium	0.00230	0.0201	0.0201	None	None
		nickel	0.00040	0.0035	0.0035	None	None
		arsenic	0.00008	0.0007	0.0007	None	None
		cadmium	0.00004	0.0004	0.0004	None	None
		selenium	0.00001	0.0001	0.0001	None	None
		Lead	0.00200	0.0175	0.0175	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-25

CO Emission Factor based on 2006 stack test.

PM/PM10 Emissions are included in the iron pourint calculations based on 2002 stack test for iron pouring and cooling with a safety factor of 10%

Appendix A: Emission Calculations

Didion iron Shakeout

Company Name: Accurate Castings, Inc

Plant Location: 118 Koomler Drive, LaPorte, IN 46350

Permit Number: T091-25089-00046

Permit Reviewer: Josiah Balogun

Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)	Capture efficiency (%)
Didion Iron Shakeout	2	PM	3.2	28.03	4.44	Dust Collector	99.00%	85.00%
		PM-10	2.24	19.62	3.11			
		SO2	0.00	0.00	0.00	None	None	
		NOx	0.00	0.00	0.00	None	None	
		VOC	1.20	10.51	10.51	None	None	
		CO	5.456	47.79	47.79	None	None	
		Chromium	0.00122	0.0107	0.0107	None	None	
		cobalt	0.00010	0.0009	0.0009	None	None	
		nickel	0.00214	0.0187	0.0187	None	None	
		arsenic	0.00042	0.0037	0.0037	None	None	
		cadmium	0.00019	0.0017	0.0017	None	None	
		selenium	0.00003	0.0003	0.0003	None	None	
		Lead	0.01232	0.1079	0.1079	None	None	

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-31

CO Emission Factor based on 2006 stack test.

Appendix A: Emission Calculations

Iron & Brass Sand handling

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)	Capture efficiency (%)
Iron and brass Sand handling	2.85	PM	3.6	44.94	13.80	Dust Collector	99.00%	70.00%
		PM-10	0.54	6.74	2.07	Dust Collector	99.00%	70.00%
		SO2	0.00	0.00	0.00	None	None	
		NOx	0.00	0.00	0.00	None	None	
		VOC	0.00	0.00	0.00	None	None	
		CO	0.00	0.00	0.00	None	None	

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-50

Brass melting (FURN 3 and Brass pouring)

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Brass melting (FURN 3) and Brass pouring	0.85	PM	3.59	13.37	3.44	Dust Collector	74.25%
		PM-10	5.34	19.88	5.12		74.25%
		SO2	0.00	0.00	0.00	None	None
		NOx	0.00	0.00	0.00	None	None
		VOC	0.00	0.00	0.00	None	None
		CO	Included in brass cooling calculations			None	None
		chromium	0.00023	0.00	0.00	None	None
		manganese	0.02250	0.08	0.08	None	None
		nickel	0.00040	0.00	0.00	None	None
		arsenic	0.00008	0.00	0.00	None	None
		cadmium	0.00004	0.00	0.00	None	None
		selenium	0.00001	0.00	0.00	None	None
		Lead	0.00900	0.03	0.03	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

PM/PM10 Emission Factors based on 2003 stack test A3 and general exhaust resulting in 0.84 lb/ton PM and 1.25 lb/ton PM10 after control.

Emission factors were back calculated based on a 74.25% control and 10% Safety factor

CO Emission Factor for pouring, cooling and shakeout were based on 2006 stack test. Emissions are shown in the calculations table for brass cooling.

Appendix A: Emission Calculations

Brass cooling

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Brass Cooling	0.85	PM	1.4	5.21	5.21	None	None
		PM-10	1.4	5.21	5.21	None	None
		SO2	0.02	0.07	0.07	None	None
		NOx	0.01	0.04	0.04	None	None
		VOC	0.14	0.52	0.52	None	None
		CO	24.80	92.33	92.33	None	None
		chromium	0.00230	0.0086	0.0086	None	None
		nickel	0.00040	0.0015	0.0015	None	None
		arsenic	0.00008	0.0003	0.0003	None	None
		cadmium	0.00004	0.0001	0.0001	None	None
		selenium	0.00001	0.0000	0.0000	None	None
		Lead	0.00200	0.0074	0.0074	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

EPA SCC# 3-04-003-25 Fire 6.25

CO Emission Factor based on 2006 stack test.

Appendix A: Emission Calculations

Brass Shakeout

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Brass Shakeout	0.85	PM	3.20	11.91	11.91	None	None
		PM-10	2.24	8.34	8.34	None	None
		SO2	0.00	0.00	0.00	None	None
		NOx	0.00	0.00	0.00	None	None
		VOC	1.20	4.47	4.47	None	None
		CO	0.00	0.00	0.00	None	None
		chromium	0.00122	0.00	0.00	None	None
		Cobalt	0.00010	0.00	0.00	None	None
		nickel	0.00214	0.01	0.01	None	None
		arsenic	0.00042	0.00	0.00	None	None
		cadmium	0.00019	0.00	0.00	None	None
		selenium	0.00003	0.00	0.00	None	None
		Lead	0.01232	0.05	0.05	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-31

CO emissions, see Cooling table on page 12.

Appendix A: Emission Calculations

Cut-Off Saw

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Two (2) cut off saws	2.85	PM	0.01	0.12	0.12	None	None
		PM-10	0.0045	0.06	0.06	None	None
		SO2	0.00	0.00	0.00	None	None
		NOx	0.00	0.00	0.00	None	None
		VOC	0.00	0.00	0.00	None	None
		CO	0.00	0.00	0.00	None	None

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-60

**Appendix A: Emission Calculations
Shell Core and Mold Making**

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Machine	Date of Construction	Capacity (tons sand/hr)	Glue Usage Rate (lbs glue/ton sand)	Weight % VOC	Potential VOC Emissions from Glue Evaporation (lb/hr)	Potential VOC Emissions from Glue Evaporation (tons/yr)	Potential Phenol Emissions from Glue Evaporation (lb/hr)	Potential Phenol Emissions from Glue Evaporation (tons/yr)
Hutch 1 through 15	varies	2.85	10	3.00%	0.86	3.74	0.86	3.74

Methodology

Uncontrolled Emissions (tons/yr) = Capacity (tons sand/hr) X Glue Usage Rate (lbs glue/ton sand) X Weight of VOC X 8760 X 1/2000lb

**Appendix A: Emission Calculations
Shell Core and Mold Making**

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Machine	Date of Construction	Capacity (tons sand /hr)	Weight Loss due to VOC emissions (%)	Potential VOC Emissions from resin Evaporation (lb/hr)	Potential VOC Emissions from resin Evaporation (ton/yr)
Hutch 1 through 15	Varies	2.85	0.004%	0.00011	0.00050

Methodology

Uncontrolled Emissions (tons/yr) = Capacity (tons sand/hr) X Weight loss due to VOC emission (%) X 8760 X 1/2000lb

**Appendix A: Emission Calculations
Wheelabrator Shot blast**

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Process	Rate (tons /hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Wheelabrator shot blast	2	PM	PM/PM10 are calculated based on Table 1 below.				
		PM-10					
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		
		Chromium	0.00646	0.0566	0.0566		
		Cobalt	0.00051	0.0045	0.0045		
		Nickel	0.01139	0.0998	0.0998		
		Arsenic	0.00221	0.0194	0.0194		
		Cadmium	0.00102	0.0089	0.0089		
		Selenium	0.00017	0.0015	0.0015		
		Lead	0.00450	0.0394	0.0394		

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-40

Dust Collector is considered integral, so the controlled emissions are used to calculate PTE.

Table 1

Process	Rate (tons / hour)	Air Flow Rte (scfm)	PM/PM10 Grain Loading (gr/scf)	Pollutant	Ebc (tons/yr)	Eac (tons/yr)	Type of Control
Wheelabrator Shot blast	2.0	2,750	0.01	PM	103.24	1.03	Dust Collector
				PM-10	103.24	1.03	

Appendix A: Emission Calculations

Brass Shot blast machine

Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number T091-25089-00046
Permit Reviewer: Josiah Balogun
Date 25-Feb-2008

Process	Rate (tons /hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Brass Shot blast machine	0.85	PM	PM/PM10 are calculated based on Table 2 below.				
		PM-10					
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		
		Chromium	0.00646	0.0241	0.0241		
		Cobalt	0.00051	0.0019	0.0019		
		Nickel	0.01139	0.0424	0.0424		
		Arsenic	0.00221	0.0082	0.0082		
		Cadmium	0.00102	0.0038	0.0038		
		Selenium	0.00017	0.0006	0.0006		
		Lead	0.0045	0.0168	0.0168		

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)

Emission Factor based on FIRE 6.25 SCC# 3-04-003-40

Dust Collector is considered integral, so the controlled emissions are used to calculate PTE.

Table 2

Process	Rate (tons / hour)	Air Flow Rate (scfm)	PM/PM10 Grain Loading (gr/scfm)	Pollutant	Ebc (tons/yr)	Eac (tons/yr)	Type of Control
Brass Shot Blast	0.85	1,700	0.01	PM	63.82	0.64	Dust Collector
				PM-10	63.82	0.64	

Note: Dust collector airflow is 5650 cfm; however, only 30% of the flow to the dust collector is from the brass shotblast

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

Company Name: Accurate Castings, Inc
Address City IN Zip: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Reviewer: Josiah Balogun
Date: 25-Feb-2008

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

28.55

250.1

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	1.9	7.6	0.6	100.0 **see below	5.5	84.0
	0.24	0.95	0.08	12.5	0.69	10.5

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

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

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 20 for HAPs emissions calculations.

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

Company Name: Accurate Castings, Inc
Address City IN Zip: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Reviewer: Josiah Balogun
Date: 25-Feb-2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.626E-04	1.501E-04	9.379E-03	2.251E-01	4.252E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	6.252E-05	1.376E-04	1.751E-04	4.752E-05	2.626E-04

Methodology is the same as page 19.

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

Appendix A: Emission Calculations
Insignificant Activities
Company Name: Accurate Castings, Inc
Plant Location: 118 Koomler Drive, LaPorte, IN 46350
Permit Number: T091-25089-00046
Permit Reviewer: Josiah Balogun
Date: 25-Feb-2008

Emission Unit	Maximum Capacity (Tons/Hour)	Emission Factor	Emission Factor (lb/ton)	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	Potential Emissions After Controls					
							PM (Tons/Year)	PM10 (Tons/Year)	SOx (Tons/Year)	NOx (Tons/Year)	VOC (Tons/Year)	CO (Tons/Year)
2 Degreasing Units - 145 gallons/year each	290 (gal/yr)	VOC	100%	MSDS	0%	0%	0.0000	0.0000	0.0000	0.0000	0.9715	0.0000
SMAW Welding	2,000 (lbs/yr)	PM PM10	0.0816 0.0816 (lb/lb Rod)	AP-42 AP-42	0.00% 0.00%	0.00% 0.00%	0.0816	0.0816	0.0000	0.0000	0.0000	0.0000
Wet Cooling Towers	186 (gal/min)	PM PM10	0.019 0.019 (lb/1,000 gal)	AP-42 AP-42	0.00% 0.00%	0.00% 0.00%	0.9287	0.9287	0.0000	0.0000	0.0000	0.0000

Truck Loading and Unloading

Given:

Emission Factor (lb/ton) = $k \times 0.0032 \times ((U/5)^{1.3}) / ((M/2)^{1.4})$

M (moisture content) 7.4%

U (mean wind speed) 6.85

k (Particle size multiplier) 0.74

0.35

PM

PM10

PM Emission Factor (lb/ton) = 0.36

PM10 Emission Factor (lb/ton) = 0.17

Capacity (tons sand/hr)	PM Emissions (lbs/hr)	PM10 Emissions (lbs/hr)	PM Emissions (tons/yr)	PM10 Emissions (tons/yr)
2.85	1.03	0.486	4.50	2.13

Road Dust Calculations

The following calculations determine the amount of emissions created by unpaved roads, based on AP-42, Ch 13.2.1 (12/2003)

1484 miles per year

PM

$E_f = k \cdot [(sL/2)^{0.65}] \cdot [(W/3)^b] - C$

= 0.476 lb/mile

where k = 0.082 (particle size multiplier for PM)

sL = 9.7 silt loading of paved roads

b = 1.5 Constant for PM-10 and PM-30 or TSP

W = 4.89 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

C = 0.00047 Emission factor for 1980s vehicle fleet exhaust, break wear and tire wear

$E = \frac{0.476 \text{ lb/mi} \times 1484 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.35 \text{ tons/yr}$

Taking natural mitigation due to precipitation into consideration:

$E_{ext} = E \cdot (1 - p / (4 \times 365)) = 0.32 \text{ tons/yr}$

where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

PM-10

$E_f = k \cdot [(sL/2)^{0.65}] \cdot [(W/3)^b] - C$

= 0.092 lb/mile

where k = 0.016 (particle size multiplier for PM-10)

sL = 9.7 silt loading of paved roads

b = 1.5 Constant for PM-10 and PM-30 or TSP

W = 4.89 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
 C = 0.00047 Emission factor for 1980s vehicle fleet exhaust, break wear and tire wear

$$E = \frac{0.092 \text{ lb/mi} \times 1484 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.069 \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

$$E_{\text{ext}} = E \cdot (1 - p / (4 \times 365)) = 0.063 \text{ tons/yr}$$

where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

HAPs Emissions from Pouring, Cooling and Shakeout based on Binder System

Annual Usage of Resin Material
(lbs/yr)

Binder System

2,371,770.00

Shell

Pollutant	Emission Factors (Lbs. of Chemical Released to Air per Lbs. of Index)	Pollutant Emissions (lbs/yr)	Pollutant Emissions (tons/yr)
Acrolein	0.000047	111.47	0.056
Benzene*	0.00000977	2.32	0.001
Formaldehyde	0.000035	83.01	0.042
Hydrogen Cyanide*	0.00097	2300.62	1.150
M-Xylene	0.000585	1387.49	0.694
Napthalene	0.000058	137.56	0.069
O-Xylene	0.000117	277.50	0.139
Phenol*	0.000395	936.85	0.468
Toluene*	0.00000124	2.94	0.001
Total Aromatic Amines	0.002339	5547.57	2.774
Total C2 to C5 Aldehydes	0.000585	1387.49	0.694
Total HAPs			6.09

METHODOLOGY

From Calculating Emission Factors for Pouring, Cooling, and Shakeout, Gary E. Mosher, American Foundrymen's Society, Modern Casting, Oct. 1994

*Emission factors for Hydrogen Cyanide, Phenol, Toluene and Benzene are alternate emission factors approved by IDEM, OAQ, based on tests conducted at KCD on 10/14/04.

Emission rate (tons/yr) = Annual Usage (lbs/yr) * Emission Factor (lbs Chemical/lbs Index) * 1 ton/2000 lbs

HAPs From SMAW Welding	HAP Emission Factor (lbs/lb Rod)	Rod Throughput (pounds/yr)	Control Eff	Potential HAP Before Controls (tons/yr)	Potential HAP After Controls (tons/yr)
Chromium	0.0263	2,000	0.00%	0.026	0.026
Cobalt	0.00139	2,000	0.00%	0.001	0.001
Manganese	0.000001	2,000	0.00%	0.000	0.000
Nickel	0.0232	2,000	0.00%	0.023	0.023
Lead	0.00171	2,000	0.00%	0.002	0.002
				Subtotal	0.053

HAPs From Degreasing	HAP Emission Factor (%)	Solvent Throughput (gal/yr)	Control Eff	Potential HAP Before Controls (tons/yr)	Potential HAP After Controls (tons/yr)
Tetrachloroethene	0.20	290	0.00%	0.002	0.002

Density = 6.7 lbs/gal