



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: December 8, 2009
RE: Ford Meter Box Company, Inc. / 169-25077-00003
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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

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

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



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

Part 70 Operating Permit OFFICE OF AIR QUALITY

Ford Meter Box Company, Inc.
775 Manchester Drive
Wabash, Indiana 46992

(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.

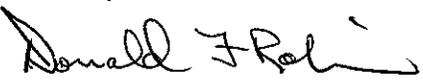
Operation Permit No.: T169-25077-00003	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: December 8, 2009 Expiration Date: December 8, 2014

TABLE OF CONTENTS

A. SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

B. GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- 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)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- 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]
- B.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
- B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
- B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- 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]
- B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
- B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12(b)(2)]
- B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]
- B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
- B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

C. SOURCE OPERATION CONDITIONS

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]
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Stack Height [326 IAC 1-7]
- C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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)]
- C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
- C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)]
[326 IAC 2-7-6(1)]

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]
- C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
- C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

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

- C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)]
[326 IAC 2-6]
- C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
- C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS - Foundry Operations

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

- D.1.1 Secondary Metal Production [326 IAC 2-2]
- D.1.2 PSD Minor Limit [326 IAC 2-2]
- D.1.3 Particulate [326 IAC 6-3-2]
- D.1.4 Hazardous Air Pollutants (Lead) [326 IAC 2-4.1] [326 IAC 2-2]
- D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.6 Particulate Control
- D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

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

- D.1.8 Baghouse Compliance Monitoring
- D.1.9 Broken Bag Detectors
- D.1.10 Visible Emissions Notations
- D.1.11 Parametric Monitoring
- D.1.12 Broken or Failed Bag Detection
- D.1.13 Bag Leak Detection

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

- D.1.14 Record Keeping Requirement

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS - Boilers

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

- D.2.1 PSD Minor Limit - Carbon Monoxide [326 IAC 2-2]
- D.2.2 Particulate [326 IAC 6-2-4]

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

- D.2.3 Record Keeping Requirement
- D.2.4 Reporting Requirements

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS - Surface Coating

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

- D.3.1 Particulate [326 IAC 6-3-2(d)]
- D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.3.3 Particulate Control

SECTION E.1 SOURCE OPERATION CONDITIONS - NESHAP, Subpart ZZZZZZ

- E.1.1 General Provisions Relating to NESHAP ZZZZZZ [326 IAC 20-1] [40 CFR Part 63, Subpart A]
- E.1.2 Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries NESHAP [40 CFR Part 63, Subpart ZZZZZZ]

Certification
Emergency Occurrence Report
Part 70 Semiannual Report
Quarterly Deviation and Compliance Monitoring Report

Attachment A: 40 CFR 63, Subpart ZZZZZZ—National Emission Standards for Hazardous Air Pollutants:
Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

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 captive brass foundry.

Source Address:	775 Manchester Drive, Wabash, Indiana 46992
Mailing Address:	PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
General Source Phone Number:	260-269-3578
SIC Code:	3366, 3362
County Location:	Wabash
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 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:

Charging, Melting, and Pouring/Cooling:

- (a) Unit #23, consisting of:
- (1) Six (6) 5-ton each electric channel induction furnaces, two (2) constructed in 1970, one (1) constructed in 1973, two (2) constructed in 1975, one (1) constructed in 2004, each with a 1.25 tons per hour melt capacity;
 - (2) One (1) box induction furnace, constructed in 1996, with a 0.695 ton per hour melt capacity;
 - (3) One (1) crucible induction furnace, constructed in 1993, with a 0.53 ton per hour melt capacity; and
 - (4) Pouring/Casting operations associated with seven (7) molding lines, identified as #1 Handline, #1 Harrison, #2 Harrison, #1 Sinto, #2 Sinto, #3 Sinto, and #4 Sinto, constructed in 1971, 1970, 1988, 1997, 1998, 2000, and 2004, respectively.

Due to power supply limitations the box induction furnace and crucible induction furnace cannot operate simultaneously. The total maximum melt capacity is 8.195 tons per hour. Metallic fume emissions from melting and pouring, including transfer points, controlled by nine (9) baghouse modules, identified as "UU" with a common inlet but nine (9) individual stack discharges.

Shakeout, Sand Handling, Mold Making, and Core Making:

- (b) Shakeout and Sand Handling from:
 - (1) Unit #6, including the #1 Handline and Harrison sand tanks plus the shakeout and conveyor operations for four (4) mold lines, identified as #1 Handline, #1 Harrison, #2 Harrison, and #4 Sinto, constructed in 1970 and modified in 2004, with a maximum combined throughput of 63 tons per hour, equipped with a baghouse which returns captured sand particulate back to the system, exhausting to Stack "H";
 - (2) Unit #20 sand system and shakeout, for three (3) mold lines, identified as #1 Sinto, #2 Sinto, and #3 Sinto, constructed in 1973 and modified in 1997, with a maximum combined throughput of 45 tons per hour, equipped with a baghouse which returns the captured sand particulate back to the system, exhausting to Stack "KK";
- (c) One (1) sand treatment and brass reclaim operations, identified as Unit #13, constructed in 1980, with a maximum throughput of 15 tons per hour, controlled by Baghouse "T"; and
- (d) Corerom ventilation, identified as Unit #19, constructed in 1970 and revised in 1991, for a maximum facility melt throughput of 8.195 tons per hour, including ventilation of thirteen (13) natural gas-fired core making units with a total maximum heat input capacity of 2.464 million British Thermal Units per hour, and a sand throughput of 2.068 tons per hour.

Machining, Grinding, and Finishing:

- (e) One (1) Iron Room, identified as Unit #5, constructed in 1973, for cast iron grinding, boring and tapping operations, with a maximum throughput of 0.78 tons per hour, using Baghouse "G" for particulate emissions control;
- (f) One (1) Pangborn 12GN steel shot blast cleaner, identified as, Unit #11, constructed in 1978, with a maximum throughput of 2.73 tons per hour, using Baghouse "Q" for particulate emissions control;
- (g) One (1) Pangborn 6GN steel shot blast cleaner, identified as Unit #12, constructed in 1970, with a maximum throughput of 1.37 tons per hour, using Baghouse "S" for particulate emissions control;
- (h) One (1) continuous flow steel shot blast cleaner, identified as Unit #14, constructed in 1970, for removing sand and internal cores from castings, with a maximum casting throughput of 8.195 tons per hour, using Baghouse "U" for particulate emissions control;
- (i) One (1) foundry grinding and cut-off operations, identified as Unit #15, constructed in 1970, with a maximum throughput of 8.195 tons per hour, using Baghouse "V" for particulate emissions control;
- (j) Various machining, grinding, and polishing operations, identified as Unit #16, constructed in 1980, with a maximum throughput of 0.78 tons per hour, using Baghouse "W" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (k) Various machining, grinding, and polishing operations, identified as Unit #17, constructed in 1981, with a maximum throughput of 2.13 tons per hour, using Baghouse "X" for capturing brass chips to be recycled as well as for controlling dust emissions. The

exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;

- (l) Various machining, grinding, and polishing operations, identified as Unit #18, constructed in 1980, with a maximum throughput of 0.90 tons per hour, using Baghouse "Y" for capturing steel particulate;
- (m) Various machining, grinding, and polishing operations, identified as Unit #26, constructed in 1999, with a maximum throughput of 2.13 tons per hour, using Baghouse "BC" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (n) One (1) shot blast machine, constructed in 2009, identified as Unit #29, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control (*Note: this unit is used as an alternative to Unit #14 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*); and
- (o) One (1) cut-off saw, approved for constructed in 2009, identified as Unit #30, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control (*Note: this unit is used as an alternative to Unit #15 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*).

Combustion Units:

- (p) One (1) 100 KW spark ignition internal combustion natural gas-fired generator, constructed in 2007, used to generate electric power, with a maximum power output rate of 134.1 horsepower, firing natural gas only, using no control and exhausting to the atmosphere; and
- (q) Two (2) diesel fuel-fired 423 maximum horsepower (2.9 million British thermal Units per hour) generators, installed in 1992.

Surface Coating Operations:

- (r) One (1) Binks Teflon spray coating booth, identified as Unit #21, installed in 1980, with a maximum rate of 121.7 units per hour, using a semi-automatic air atomization application method for coating brass balls, using paper air filters for overspray control, and exhausting to Stack "OO";
- (s) One (1) nut coating operation for coating fittings, identified as Unit #27, installed in 1996, with a maximum coating rate of 1,960 units per hour, utilizing a spin coating application system; and
- (t) One (1) paint booth for miscellaneous painting and gluing activities, using brush, roller, or aerosol spray applications, with a maximum capacity of 3.75 pounds of coating per hour, using dry filters for particulate control, constructed in 2008.

A.3 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, as defined in 326 IAC 2-7-1(21):

- (a) One (1) tool grinding operation, identified as Unit #8, vented through Baghouse "C";

- (b) Machining operations vented through Baghouse "AB";
- (c) Two (2) natural gas-fired chip dryers, each with a maximum heat input of 0.625 million British Thermal Units per hour, each with a maximum throughput of 50 pounds of volatiles per hour, and each equipped (as integral part of the equipment as determined in F169-5469-00003, issued on December 13, 1996) with a 0.425 million British Thermal Units per hour thermal oxidizer, exhausting to Stack "TT" and Stack "VV", respectively;
- (d) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million British Thermal Units per hour, including, but not limited to:

Two (2) natural gas fired boilers for building heating, identified as Units #1 and #2, installed in 2009, each with a maximum heat input capacity of 7.325 MMBtu/hr, and exhausting to Stack "A";
- (e) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six (6) million British Thermal Units per hour;
- (f) Combustion source flame safety purging on startup;
- (g) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;
- (h) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;
- (i) Vessels storing lubricating oils, hydraulic oils, machining oils, and coolant fluids;
- (j) Refractory storage not requiring air pollution control equipment;
- (k) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (l) Machining where an aqueous cutting coolant continuously floods the machining interface;
- (m) Degreasing operations, consisting of cold cleaner degreasers with remote reservoirs that were existing as of January 1, 1980, that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;
- (n) Cleaners and solvents with low vapor pressure and with a combined usage of less than 145 gallons per 12 months;
- (o) Brazing equipment, cutting torch, soldering equipment and welding equipment not resulting in HAP emissions;
- (p) Closed loop heating and cooling systems;
- (q) Cutting 200.00 linear feet or less of one inch (1") plate or equivalent;
- (r) Using 80 tons or less of welding consumables;
- (s) Operations using aqueous solutions with less than 1 percent of VOCs excluding HAPs;
- (t) Water-based adhesives that are less than or equal to 5 percent VOCs by volume

- excluding HAPs;
- (u) Quenching operations used with heat treating processes;
 - (v) Replacement or repair of electrostatic precipitators, bags in baghouse and filters in other air filtration equipment;
 - (w) Heat exchanger cleaning and repair;
 - (x) Paved and unpaved roads and parking lots with public access;
 - (y) Purging of gas lines and vessels not associated with production process;
 - (z) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup;
 - (aa) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower;
 - (bb) Stationary fire pumps;
 - (cc) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual standard cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.
 - (dd) Mold release agent using low volatile products;
 - (ee) A laboratory as defined in 326 IAC 2-7-1(20)(C);
 - (ff) Other activities with volatile organic compound (VOC) emissions equal to or less than 15 pounds per day, and activities with particulate matter (PM) emissions equal to or less than 25 pounds per day;
 - (gg) One (1) parts washer with no VOC emissions exhausting through stack/vent "BD"; and
 - (hh) One (1) powder coating booth, used for epoxy coating, with a maximum capacity of eighteen (18) units per hour, using an integral cartridge filter for particulate capture and reuse, constructed in 1993 [326 IAC 6-3-2].

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T169-25077-00003, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement 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 prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

Indiana Department of Environmental Management
Compliance and Enforcement 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. Any emergencies that have been previously reported pursuant to paragraph (b)(5) of this condition and certified by a "responsible official" need only referenced by the date of the original 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 T169-25077-00003 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 combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

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

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

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

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

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

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

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

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

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

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

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

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

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

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

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

- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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
Permit Administration and Support Section, 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. 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 and Enforcement Branch, 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 or ninety (90) days of initial start-up, whichever is later. 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 and Enforcement 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 and Enforcement 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).

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

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

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

The statement must be submitted to:

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

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

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

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

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

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

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

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:

Charging, Melting, and Pouring/Cooling:

(a) Unit #23, consisting of:

- (1) Six (6) 5-ton each electric channel induction furnaces, two (2) constructed in 1970, one (1) constructed in 1973, two (2) constructed in 1975, one (1) constructed in 2004, each with a 1.25 tons per hour melt capacity;
- (2) One (1) box induction furnace, constructed in 1996, with a 0.695 ton per hour melt capacity;
- (3) One (1) crucible induction furnace, constructed in 1993, with a 0.53 ton per hour melt capacity; and
- (4) Pouring/Casting operations associated with seven (7) molding lines, identified as #1 Handline, #1 Harrison, #2 Harrison, #1 Sinto, #2 Sinto, #3 Sinto, and #4 Sinto, constructed in 1971, 1970, 1988, 1997, 1998, 2000, and 2004, respectively.

Due to power supply limitations the box induction furnace and crucible induction furnace cannot operate simultaneously. The total maximum melt capacity is 8.195 tons per hour. Metallic fume emissions from melting and pouring, including transfer points, controlled by nine (9) baghouse modules, identified as "UU" with a common inlet but nine (9) individual stack discharges.

Shakeout, Sand Handling, Mold Making, and Core Making:

(b) Shakeout and Sand Handling from:

- (1) Unit #6, including the #1 Handline and Harrison sand tanks plus the shakeout and conveyor operations for four (4) mold lines, identified as #1 Handline, #1 Harrison, #2 Harrison, and #4 Sinto, constructed in 1971 and modified in 2004, with a maximum combined throughput of 63 tons per hour, equipped with a baghouse which returns captured sand particulate back to the system, exhausting to Stack "H";
 - (2) Unit #20 sand system and shakeout, for three (3) mold lines, identified as #1 Sinto, #2 Sinto, and #3 Sinto, constructed in 1973 and modified in 1997, with a maximum combined throughput of 45 tons per hour, equipped with a baghouse which returns the captured sand particulate back to the system, exhausting to Stack "KK";
- (c) One (1) sand treatment and brass reclaim operations, identified as Unit #13, constructed in 1980, with a maximum throughput of 15 tons per hour, controlled by Baghouse "T"; and
- (d) Coreroom ventilation, identified as Unit #19, constructed in 1970 and modified in 1991, for a maximum facility melt throughput of 8.195 tons per hour, including ventilation of thirteen (13) natural gas-fired core making units with a total maximum heat input capacity of 2.464 million British Thermal Units per hour, and a sand throughput of 2.068 tons per hour.

Machining, Grinding, and Finishing:

- (e) One (1) Iron Room, identified as Unit #5, constructed in 1973, for cast iron grinding, boring and tapping operations, with a maximum throughput of 0.78 tons per hour, using Baghouse "G" for particulate emissions control;
- (f) One (1) Pangborn 12GN steel shot blast cleaner, identified as, Unit #11, constructed in 1978, with a maximum throughput of 2.73 tons per hour, using Baghouse "Q" for particulate emissions control;
- (g) One (1) Pangborn 6GN steel shot blast cleaner, identified as Unit #12, constructed in 1970, with a maximum throughput of 1.37 tons per hour, using Baghouse "S" for particulate emissions control;
- (h) One (1) continuous flow steel shot blast cleaner, identified as Unit #14, constructed in 1970, for removing sand and internal cores from castings, with a maximum casting throughput of 8.195 tons per hour, using Baghouse "U" for particulate emissions control;
- (i) One (1) foundry grinding and cut-off operations, identified as Unit #15, constructed in 1970, with a maximum throughput of 8.195 tons per hour, using Baghouse "V" for particulate emissions control;
- (j) Various machining, grinding, and polishing operations, identified as Unit #16, constructed in 1980, with a maximum throughput of 0.78 tons per hour, using Baghouse "W" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (k) Various machining, grinding, and polishing operations, identified as Unit #17, constructed in 1981, with a maximum throughput of 2.13 tons per hour, using Baghouse "X" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (l) Various machining, grinding, and polishing operations, identified as Unit #18, with a maximum throughput of 0.90 tons per hour, using Baghouse "Y" for capturing steel particulate;
- (m) Various machining, grinding, and polishing operations, identified as Unit #26, constructed in 1999, with a maximum throughput of 2.13 tons per hour, using Baghouse "BC" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (n) One (1) shot blast machine, constructed in 2009, identified as Unit #29, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control [326 IAC 6-3-2] (*Note: this unit is used as an alternative to Unit #14 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*); and
- (o) One (1) cut-off saw, constructed in 2009, identified as Unit #30, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control [326 IAC 6-3-2] (*Note: this unit is used as an alternative to Unit #15 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*).

(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 Secondary Metal Production [326 IAC 2-2]

Each of the furnaces, identified as part of Unit #23, shall melt only clean charge, customer returns, or internal scrap. Violation of this condition would cause the source to be considered a secondary metal production facility for purposes of 326 IAC 2-2, Prevention of Significant Deterioration.

Compliance with the above condition, combined with Condition D.1.2 shall render 326 IAC 2-2 (PSD) not applicable.

D.1.2 PSD Minor Limit [326 IAC 2-2]

In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the PM and PM₁₀ emissions from Units #5, #6, #11-#18, #20, #23, #26, #29, and #30 shall not exceed the emissions limits listed in the table below:

Emissions Unit	PM Emission Limit (lb/hr)	PM ₁₀ Emission Limit (lb/hr)
Unit #23: Furnace Charging, Melting and Pouring	5.71	5.71
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	3.42	3.42
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	3.42	3.42
Unit #13: Sand Treatment and Brass Reclaim Operations	2.28	2.28
Unit #5: Iron Room	0.46	0.46
Unit #11: Shot Blasting	1.14	1.14
Unit #12: Shot Blasting	0.46	0.46
Unit #14: Shot Blasting	3.42	3.42
Unit #15: Grinding and Cut-Off	3.42	3.42
Unit #16: Machining, Grinding, and Polishing	0.68	0.68
Unit #17: Machining, Grinding, and Polishing	2.28	2.28
Unit #18: Machining, Grinding, and Polishing	0.68	0.68
Unit #26: Machining, Grinding, and Polishing	2.28	2.28
Unit #29: Shot blast machine	1.14	1.14
Unit #30: Cut-off saw	1.14	1.14

Compliance with the above limits, combined with Condition D.1.1 and the potential to emit PM and PM₁₀ from other emission units at the source, shall limit the PM and PM₁₀ from the entire source to less than 250 tons per twelve (12) consecutive month period each and render 326 IAC 2-2 not applicable.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from Units #5, #6, #11-#20, #23, #26, #29, and #30 shall not exceed the pounds per hour emission limitations when operating at maximum process weight rates as specified in the table below:

Emissions Unit	Process Weight Rate (ton/hr)	326 IAC 6-3-2 Allowable Particulate Emission Limit (lb/hr)
Unit #23: Furnace Charging, Melting and Pouring	8.195	16.78
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	67.10	47.36
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	49.10	44.41
Unit #13: Sand Treatment and Brass Reclaim Operations	15.00	25.16
Unit #19: Coreroom Ventilation	10.263	19.51
Unit #5: Iron Room	0.78	3.47
Unit #11: Shot Blasting	2.73	8.04
Unit #12: Shot Blasting	1.37	5.06
Unit #14: Shot Blasting	8.195	16.78
Unit #15: Grinding and Cut-Off	8.195	16.78
Unit #16: Machining, Grinding, and Polishing	0.78	3.47
Unit #17: Machining, Grinding, and Polishing	2.13	6.80
Unit #18: Machining, Grinding, and Polishing	0.90	3.82
Unit #26: Machining, Grinding, and Polishing	2.13	6.80
Unit #29: Shot blast machine	2.00	6.52
Unit #30: Cut-off saw	2.00	6.52

The pounds per hour limitations were calculated with the equations below:

- (a) 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:

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

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

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

D.1.4 Hazardous Air Pollutants (Lead) [326 IAC 2-4.1] [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-4.1 and 326 IAC 2-2 not applicable, the lead emissions from Units #5, #6, #11-#18, #20, #23, #26, #29, and #30 shall not exceed the emissions limits listed in the table below:

Emissions Unit	Lead Emission Limit (lb/hr)
Unit #23: Furnace Charging, Melting and Pouring	0.548
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	0.034
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	0.034
Unit #13: Sand Treatment and Brass Reclaim Operations	0.009
Unit #5: Iron Room	0.005
Unit #11: Shot Blasting	0.119

Emissions Unit	Lead Emission Limit (lb/hr)
Unit #12: Shot Blasting	0.059
Unit #14: Shot Blasting	0.018
Unit #15: Grinding and Cut-Off	0.342
Unit #16: Machining, Grinding, and Polishing	0.056
Unit #17: Machining, Grinding, and Polishing	0.306
Unit #18: Machining, Grinding, and Polishing	0.064
Unit #26: Machining, Grinding, and Polishing	0.306
Unit #29: Shot blast machine	0.023
Unit #30: Cut-off saw	0.023

Compliance with the above limits, combined with the potential to emit HAP from other emission units at this source, shall limit the lead from the entire source to less than ten (10) tons per twelve (12) consecutive month period and the total HAPs from the entire source to less than twenty-five (25) tons per twelve (12) consecutive month period and render 326 IAC 2-4.1 (Major Source of Hazardous Air Pollutants) not applicable. Compliance with the above limits shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.6 Particulate Control

- (a) In order to comply with Conditions D.1.2, D.1.3, and D.1.4, the baghouses and cartridge filters for particulate control shall be in operation and control emissions from Units #5, #6, #11-#18, #20, #23, #26, #29, and #30 at all times these units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall:

- (a) Perform PM, PM₁₀, and lead testing on the baghouse modules UU for Unit #23 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration. This testing shall be conducted utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM.
- (b) Perform PM, PM₁₀, and lead testing for baghouse H for Unit #6 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for

Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group A, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group A has been tested. PM₁₀ includes filterable and condensable PM.

Group A Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	H
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	KK
Unit #13: Sand Treatment and Brass Reclaim Operations	T

- (c) Perform PM, PM₁₀, and lead testing for baghouse V for Unit #15 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group B, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group B has been tested. PM₁₀ includes filterable and condensable PM.

Group B Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #15: Grinding and Cut-Off	V
Unit #5: Iron Room	G
Unit #16: Machining, Grinding, and Polishing	W
Unit #17: Machining, Grinding, and Polishing	X
Unit #18: Machining, Grinding, and Polishing	Y
Unit #26: Machining, Grinding, and Polishing	BC
Unit #30: Cut-off saw	Unit #30 cartridge filter

- (d) Perform PM, PM₁₀, and lead testing for baghouse U for Unit #14 within 180 days of issuance of Part 70 Operating Permit No. 169-25077-00003 or within 180 days publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group C, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group C has been tested. PM₁₀ includes filterable and condensable PM.

Group C Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #14: Shot Blasting	U
Unit #11: Shot Blasting	Q
Unit #12: Shot Blasting	S
Unit #29: Shot blast machine	Unit #29 cartridge filter

- (e) All testing shall be conducted in accordance with Section C - Performance Testing.

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

D.1.8 Baghouse Compliance Monitoring

- (a) Except for Baghouse UU, for baghouses and cartridge filters equipped with a continuous broken bag (leak) detector at the exhaust stack, the Permittee shall comply with either Condition D.1.9 or Conditions D.1.10 and D.1.11.
- (b) For baghouses and cartridge filters that are not equipped with a continuous broken bag (leak) detector at the exhaust stack, the Permittee shall comply with Conditions D.1.10 and D.1.11.
- (c) For baghouse UU, the Permittee shall either comply with Condition D.1.13 or Conditions D.1.10 and D.1.11.
- (d) All baghouses and cartridge filters shall comply with Condition D.1.12.

D.1.9 Broken Bag Detectors

- (a) Except for Baghouse UU, for baghouses and cartridge filters equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction.
- (b) Each broken bag detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997).
- (c) In the event that a breakdown of a broken bag detector occurs, a record shall be made of the times and the reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a broken bag detector is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more, and a backup broken bag detector is not online within twenty-four (24) hours of shutdown or malfunction of the primary broken bag detector, the Permittee shall comply with Conditions D.1.10 and D.1.11 until such time that a broken bag detector is online and functioning, pursuant to paragraph (b) of this condition.
- (e) The detector shall be subject to approval by IDEM, OAQ.

D.1.10 Visible Emissions Notations

For baghouses or cartridge filters that are not equipped with a continuous broken bag (leak) detector or as an alternative to complying with Condition D.1.9, the Permittee shall comply with the following:

- (a) Daily visible emission notations of stack exhaust from each baghouse and cartridge filter shall be performed 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.1.11 Parametric Monitoring

For baghouses and cartridge filters that are not equipped with a continuous broken bag (leak) detector or as an alternative to complying with Condition D.1.9, the Permittee shall record the pressure drop across each baghouse at least once per day when each emissions unit is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range listed in the table below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Emissions Unit	Baghouse	Pressure Drop Range (inches of water)
Unit #23: Furnace Charging, Melting and Pouring	UU	3.0 to 8.0
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	H	1.5 to 5.5
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	KK	1.5 to 5.5
Unit #13: Sand Treatment and Brass Reclaim Operations	T	1.5 to 5.5
Unit #5: Iron Room	G	1.5 to 5.5
Unit #11: Shot Blasting	Q	1.5 to 5.5
Unit #12: Shot Blasting	S	1.5 to 5.5
Unit #14: Shot Blasting	U	1.5 to 5.5
Unit #15: Grinding and Cut-Off	V	1.5 to 5.5
Unit #16: Machining, Grinding, and Polishing	W	1.0. to 5.0
Unit #17: Machining, Grinding, and Polishing	X	1.0 to 5.0
Unit #18: Machining, Grinding, and Polishing	Y	1.0 to 5.0
Unit #26: Machining, Grinding, and Polishing	BC	1.0 to 5.0
Unit #29: Shot blast machine	Unit #29 cartridge filter	1.0 to 8.0
Unit #30: Cut-off saw	Unit #30 cartridge filter	1.0 to 8.0

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

D.1.12 Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, by an alarm of the bag leak detector warning system, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces. An alarm of the bag leak detector warning system shall not be considered an indicator of bag failure if the baghouse's pressure drop and visible emissions readings are normal.

D.1.13 Bag Leak Detection

If the Permittee chooses, the Permittee shall install and operate a bag leak detection system for each baghouse module in baghouse UU, controlling Unit #23, with the following requirements:

- (a) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997).
- (b) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.
- (c) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (d) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (e) below. The alarm must be located such that it can be heard by the appropriate plant personnel.
- (e) In the initial adjustment of the bag leak detection system, at a minimum, the baseline output must be established by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
 - (1) Following the initial adjustment of the system, the averaging period, alarm set point, or alarm delay time must not be adjusted without IDEM approval, except as provided by subparagraph (2) below.
 - (2) Once per quarter, the Permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to procedures identified in the site-specific monitoring plan.
- (f) The bag leak detection sensor must be installed downstream of the fabric filter.

- (g) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

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

D.1.14 Record Keeping Requirement

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the type and amount of metal melted in the furnaces sufficient to show compliance with Condition D.1.1.
- (b) When using Visible Emissions Notations and Parametric Monitoring for baghouse and cartridge filter compliance monitoring,
 - (1) The Permittee shall maintain daily records of the visible emission notations of the baghouse and cartridge filter stack exhaust in order to document compliance with Condition D.1.10. 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, (i.e. the process did not operate that day).
 - (2) The Permittee shall maintain daily records of pressure drop across the baghouse and cartridge filters in order to document compliance with Condition D.1.11. 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, (i.e. the process did not operate that day).
- (c) When using Broken Bag Detectors for baghouse and cartridge filter compliance monitoring, for baghouses other than Baghouse UU, in order to document compliance with Condition D.1.9, the Permittee shall maintain the following daily records:
 - (1) The date and time of all broken bag detector alarms;
 - (2) For each valid alarm, the time the Permittee initiated corrective action;
 - (3) The corrective action taken; and
 - (4) The date on which the corrective action was completed.
- (d) If the Permittee chooses to comply with Condition D.1.13, the Permittee shall keep the following records for Baghouse UU to document compliance with Condition D.1.13:
 - (1) Records of the bag leak detection system output.
 - (2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.
 - (3) The date and time of all bag leak detection system alarms, and for each valid alarm, the time the Permittee initiated corrective action, the corrective action taken, and the date on which the corrective action was completed.
- (e) 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:

Combustion Units:

- (a) Two (2) natural gas fired boilers for building heating, identified as Units #1 and #2, installed in 2009, each with a maximum heat input capacity of 7.325 MMBtu/hr, and exhausting to Stack "A";
- (b) Two (2) diesel fuel-fired 423 maximum horsepower (2.9 million British thermal Units per hour) generators, installed in 1992.

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

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

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

The Permittee shall comply with the following:

The hours of operation for the two (2) diesel fuel-fired 423 horsepower generators shall not exceed 500 hours per per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

Compliance with the above limit, combined with the potential to emit CO from other emission units at the source, shall limit the CO from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

D.2.2 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the boilers, identified as Units #1 and #2, shall be limited to 0.41 pounds per MMBtu heat input, each.

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

D.2.3 Record Keeping Requirement

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the hours of operation of each of the two (2) diesel fuel-fired 423 horsepower generators.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.4 Reporting Requirements

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Surface Coating Operations:

- (a) One (1) Binks Teflon spray coating booth, identified as Unit #21, installed in 1980, with a maximum rate of 121.7 units per hour, using a semi-automatic air atomization application method for coating brass balls, using paper air filters for overspray control, and exhausting to Stack "OO".

Insignificant Activities:

- (b) One (1) powder coating booth, used for epoxy coating, with a maximum capacity of eighteen (18) units per hour, using an integral cartridge filter for particulate capture and reuse, constructed in 1993 [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.3.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from Binks Teflon Spray Coating Booth (Unit #21) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with the manufacturer's specifications.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the powder coating booth shall not exceed 0.45 pounds per hour when operating at a process weight rate of 73.6 pounds per hour.

The pounds per hour limitations were calculated with the equations below:

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

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

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

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

Compliance Determination Requirements

D.3.3 Particulate Control

- (a) In order to comply with Conditions D.3.1(b), the baghouse for particulate control shall be in operation and control emissions from the powder coating booth at all times the powder coating booth is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units

will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

SECTION E.1 SOURCE OPERATION CONDITIONS - NESHAP, Subpart ZZZZZZ

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

Charging, Melting, and Pouring/Cooling:

(a) Unit #23, consisting of:

- (1) Six (6) 5-ton each electric channel induction furnaces, two (2) constructed in 1970, one (1) constructed in 1973, two (2) constructed in 1974, one (1) constructed in 2004, each with a 1.25 tons per hour melt capacity;
- (2) One (1) box induction furnace, constructed in 1996, with a 0.695 ton per hour melt capacity;
- (3) One (1) crucible induction furnace, constructed in 1993, with a 0.53 ton per hour melt capacity; and
- (4) Pouring/Casting operations associated with seven (7) molding lines, identified as #1 Handline, #1 Harrison, #2 Harrison, #1 Sinto, #2 Sinto, #3 Sinto, and #4 Sinto, constructed in 1971, 1970, 1988, 1997, 1998, 2000, and 2004, respectively.

Due to power supply limitations the box induction furnace and crucible induction furnace cannot operate simultaneously. The total maximum melt capacity is 8.195 tons per hour. Metallic fume emissions from melting and pouring, including transfer points, controlled by nine (9) baghouse modules, identified as "UU" with a common inlet but nine (9) individual stack discharges.

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

E.1.1 General Provisions Relating to NESHAP ZZZZZZ [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.11555, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 1 of 40 CFR Part 63, Subpart ZZZZZZ in accordance with schedule in 40 CFR 63 Subpart ZZZZZZ.

E.1.2 Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries NESHAP [40 CFR Part 63, Subpart ZZZZZZ]

The Permittee which engages in a copper foundry operation shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZZ (included as Attachment A of this permit), with a compliance date of June 27, 2011:

- (1) 40 CFR 63.11544(a)(2), (a)(4)(i), (b), (c);
- (2) 40 CFR 63.11545(a);
- (3) 40 CFR 63.11550(a), (b)(1), (d);
- (4) 40 CFR 63.11551;
- (5) 40 CFR 63.11552;
- (6) 40 CFR 63.11553;
- (7) 40 CFR 63.11555;
- (8) 40 CFR 63.11556;
- (9) 40 CFR 63.11557; and
- (10) Table 1 to 40 CFR 63, Subpart ZZZZZZ.

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

Source Name: Ford Meter Box Company, Inc.
Source Address: 775 Manchester Drive, Wabash, Indiana 46992
Mailing Address: PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
Part 70 Permit No.: T169-25077-00003

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 AND ENFORCEMENT 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: Ford Meter Box Company, Inc.
Source Address: 775 Manchester Drive, Wabash, Indiana 46992
Mailing Address: PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
Part 70 Permit No.: T169-25077-00003

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 AND ENFORCEMENT BRANCH**

Part 70 Semiannual Report

Source Name: Ford Meter Box Company, Inc.
Source Address: 775 Manchester Drive, Wabash, Indiana 46992
Mailing Address: PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
Part 70 Permit No.: T169-25077-00003
Facility: One (1) diesel fuel-fired 423 maximum horsepower generator
Pollutant: CO
Limit: 500 hours of operation per twelve (12) consecutive month period.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Semiannual Report

Source Name: Ford Meter Box Company, Inc.
Source Address: 775 Manchester Drive, Wabash, Indiana 46992
Mailing Address: PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
Part 70 Permit No.: T169-25077-00003
Facility: One (1) diesel fuel-fired 423 maximum horsepower generator
Pollutant: CO
Limit: 500 hours of operation per twelve (12) consecutive month period.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

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

Attach a signed certification to complete this report.

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

Source Name: Ford Meter Box Company, Inc.
 Source Address: 775 Manchester Drive, Wabash, Indiana 46992
 Mailing Address: PO Box 398, 775 Manchester Ave., Wabash, Indiana 46992-0398
 Part 70 Permit No.: T169-25077-00003

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.

Attachment A
to Part 70 Operating Permit No. T169-25077-00003

Ford Meter Box Company, Inc.
775 Manchester Drive, Wabash, IN 46992-0398

Subpart ZZZZZZ—National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

Source: 74 FR 30393, June 25, 2009, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11544 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an aluminum foundry, copper foundry, or other nonferrous foundry as defined in §63.11556, “What definitions apply to this subpart?” that is an area source of hazardous air pollutant (HAP) emissions as defined in §63.2 and meets the criteria specified in paragraphs (a)(1) through (4) of this section. Once you are subject to this subpart, you must remain subject to this subpart even if you subsequently do not meet the criteria in paragraphs (a)(1) through (4) of this section.

(1) Your aluminum foundry uses material containing aluminum foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”; or

(2) Your copper foundry uses material containing copper foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”; or

(3) Your other nonferrous foundry uses material containing other nonferrous foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”.

(4) Your aluminum foundry, copper foundry, or other nonferrous foundry has an annual metal melt production (for existing affected sources) or an annual metal melt capacity (for new affected sources) of at least 600 tons per year (tpy) of aluminum, copper, and other nonferrous metals, including all associated alloys. You must determine the annual metal melt production and capacity for the time period as described in paragraphs (a)(4)(i) through (iv) of this section. The quantity of ferrous metals melted in iron or steel melting operations and the quantity of nonferrous metal melted in non-foundry melting operations are not included in determining the annual metal melt production for existing affected sources or the annual metal melt capacity for new affected sources.

(i) If you own or operate a melting operation at an aluminum, copper or other nonferrous foundry as of February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt production for calendar year 2010.

(ii) If you construct or reconstruct a melting operation at an aluminum, copper or other nonferrous foundry after February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt capacity at startup.

(iii) If your foundry with an existing melting operation increases production after calendar year 2010 such that the annual metal melt production equals or exceeds 600 tpy, you must submit a written notification of applicability to the Administrator within 30 days after the end of the calendar year and comply within 2 years after the date of the notification.

- (iv) If your foundry with a new melting operation increases capacity after startup such that the annual metal melt capacity equals or exceeds 600 tpy, you must submit a written notification of applicability to the Administrator within 30 days after the capacity increase year and comply at the time of the capacity increase.
- (b) This subpart applies to each new or existing affected source located at an aluminum, copper or other nonferrous foundry that is an area source as defined by §63.2. The affected source is the collection of all melting operations located at an aluminum, copper, or other nonferrous foundry.
- (c) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before February 9, 2009.
- (d) An affected source is a new source if you commenced construction or reconstruction of the affected source after February 9, 2009.
- (e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act.
- (f) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

§ 63.11545 What are my compliance dates?

- (a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than June 27, 2011.
- (b) If you start up a new affected source on or before June 25, 2009, you must achieve compliance with the provisions of this subpart no later than June 25, 2009.
- (c) If you start up a new affected source after June 25, 2009, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

Standards and Compliance Requirements

§ 63.11550 What are my standards and management practices?

- (a) If you own or operate new or existing affected sources at an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to this subpart, you must comply with the requirements in paragraphs (a)(1) through (3) of this section.
- (1) Cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g., except when access is needed; including, but not limited to charging, alloy addition, and tapping).
- (2) Purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not

scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns).

(3) Prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in paragraphs (a)(1) and (2) of this section and may include any other management practices that are implemented at the facility to minimize emissions from melting furnaces. You must inform your appropriate employees of the management practices that they must follow. You may use your standard operating procedures as the management practices plan provided the standard operating procedures include the required management practices in paragraphs (a)(1) and (2) of this section.

(b) If you own or operate a new or existing affected source that is located at a large foundry as defined in §63.11556, you must comply with the additional requirements in paragraphs (b)(1) and (2) of this section.

(1) For existing affected sources located at a large foundry, you must achieve a particulate matter (PM) control efficiency of at least 95.0 percent or emit no more than an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (g/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)).

(2) For new affected sources located at a large foundry, you must achieve a PM control efficiency of at least 99.0 percent or emit no more than an outlet PM concentration limit of at most 0.023 g/dscm (0.010 gr/dscf).

(c) If you own or operate an affected source at a small foundry that subsequently becomes a large foundry after the applicable compliance date, you must meet the requirements in paragraphs (c)(1) through (3) of this section.

(1) You must notify the Administrator within 30 days after the capacity increase or the production increase, whichever is appropriate;

(2) You must modify any applicable permit limits within 30 days after the capacity increase or the production increase to reflect the current production or capacity, if not done so prior to the increase;

(3) You must comply with the PM control requirements in paragraph (b) of this section no later than 2 years from the date of issuance of the permit for the capacity increase or production increase, or in the case of no permit issuance, the date of the increase in capacity or production, whichever occurs first.

(d) These standards apply at all times.

§ 63.11551 What are my initial compliance requirements?

(a) Except as specified in paragraph (b) of this section, you must conduct a performance test for existing and new sources at a large copper or other nonferrous foundry that is subject to §63.11550(b). You must conduct the test within 180 days of your compliance date and report the results in your Notification of Compliance Status according to §63.9(h).

(b) If you own or operate an existing affected source at a large copper or other nonferrous foundry that is subject to §63.11550(b), you are not required to conduct a performance test if a prior performance test was conducted within the past 5 years of the compliance date using the same methods specified in paragraph (c) of this section and you meet either of the following two conditions:

(1) No process changes have been made since the test; or

(2) You demonstrate to the satisfaction of the permitting authority that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(c) You must conduct each performance test according to the requirements in §63.7 and the requirements in paragraphs (c)(1) and (2) of this section.

(1) You must determine the concentration of PM (for the concentration standard) or the mass rate of PM in pounds per hour at the inlet and outlet of the control device (for the percent reduction standard) according to the following test methods:

(i) Method 1 or 1A (40 CFR part 60, appendix A–1) to select sampling port locations and the number of traverse points in each stack or duct. If you are complying with the concentration provision in §63.11550(b), sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere. If you are complying with the percent reduction provision in §63.11550(b), sampling sites must be located at the inlet and outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F (40 CFR part 60, appendix A–1), or Method 2G (40 CFR part 60, appendix A–2) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix A–2) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(iv) Method 4 (40 CFR part 60, appendix A–3) to determine the moisture content of the stack gas.

(v) Method 5 or 5D (40 CFR part 60, appendix A–3) or Method 17 (40 CFR part 60, appendix A–6) to determine the concentration of PM or mass rate of PM (front half filterable catch only). If you choose to comply with the percent reduction PM standard, you must determine the mass rate of PM at the inlet and outlet in pounds per hour and calculate the percent reduction in PM.

(2) Three valid test runs are needed to comprise a performance test. Each run must cover at least one production cycle (charging, melting, and tapping).

(3) For a source with a single control device exhausted through multiple stacks, you must ensure that three runs are performed by a representative sampling of the stacks satisfactory to the Administrator or his or her delegated representative. You must provide data or an adequate explanation why the stack(s) chosen for testing are representative.

§ 63.11552 What are my monitoring requirements?

(a) You must record the information specified in §63.11553(c)(2) to document conformance with the management practices plan required in §63.11550(a).

(b) Except as specified in paragraph (b)(3) of this section, if you own or operate an existing affected source at a large foundry, you must conduct visible emissions monitoring according to the requirements in paragraphs (b)(1) and (2) of this section.

(1) You must conduct visual monitoring of the fabric filter discharge point(s) (outlets) for any VE according to the schedule specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) You must perform a visual determination of emissions once per day, on each day the process is in operation, during melting operations.

(ii) If no VE are detected in consecutive daily visual monitoring performed in accordance with paragraph (b)(1)(i) of this section for 30 consecutive days or more of operation of the process, you may decrease the frequency of visual monitoring to once per calendar week of time the process is in operation, during melting operations. If VE are detected during these inspections, you must resume daily visual monitoring of that operation during each day that the process is in operation, in accordance with paragraph (b)(1)(i) of this section until you satisfy the criteria of this section to resume conducting weekly visual monitoring.

(2) If the visual monitoring reveals the presence of any VE, you must initiate procedures to determine the cause of the emissions within 1 hour of the initial observation and alleviate the cause of the emissions within 3 hours of initial observation by taking whatever corrective action(s) are necessary. You may take more than 3 hours to alleviate a specific condition that causes VE if you identify in the monitoring plan this specific condition as one that could lead to VE in advance, you adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the VE occurs, and you demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) As an alternative to the monitoring requirements for an existing affected source in paragraphs (b)(1) and (2) of this section, you may install, operate, and maintain a bag leak detection system for each fabric filter according to the requirements in paragraph (c) of this section.

(c) If you own or operate a new affected source located at a large foundry subject to the PM requirements in §63.11550(b)(2) that is equipped with a fabric filter, you must install, operate, and maintain a bag leak detection system for each fabric filter according to paragraphs (c)(1) through (4) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. You must continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority, except as provided in paragraph (c)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must prepare a site-specific monitoring plan for each bag leak detection system. You must operate and maintain each bag leak detection system according to the plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

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

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

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

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

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section.

(3) Except as provided in paragraph (c)(4) of this section, you must initiate procedures to determine the cause of every alarm from a bag leak detection system within 1 hour of the alarm and alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

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

(ii) Sealing off defective bags or filter media;

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

(iv) Sealing off a defective fabric filter compartment;

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

(4) You may take more than 3 hours to alleviate a specific condition that causes an alarm if you identify in the monitoring plan this specific condition as one that could lead to an alarm, adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(d) If you use a control device other than a fabric filter for new or existing affected sources subject to §63.11550(b), you must submit a request to use an alternative monitoring procedure as required in §63.8(f)(4).

§ 63.11553 What are my notification, reporting, and recordkeeping requirements?

(a) You must submit the Initial Notification required by §63.9(b)(2) no later than 120 calendar days after June 25, 2009 or within 120 days after the source becomes subject to the standard. The Initial Notification

must include the information specified in paragraphs (a)(1) through (3) of this section and may be combined with the Notification of Compliance Status required in paragraph (b) of this section.

- (1) The name and address of the owner or operator;
- (2) The address (i.e., physical location) of the affected source; and
- (3) An identification of the relevant standard, or other requirement, that is the basis of the notification and source's compliance date.

(b) You must submit the Notification of Compliance Status required by §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11545 unless you must conduct a performance test. If you must conduct a performance test, you must submit the Notification of Compliance Status within 60 days of completing the performance test. Your Notification of Compliance Status must indicate if you are a small or large foundry as defined in §63.11556, the production amounts as the basis for the determination, and if you are a large foundry, whether you elect to comply with the control efficiency requirement or PM concentration limit in §63.11550(b). In addition to the information required in §63.9(h)(2) and §63.11551, your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(1) "This facility will operate in a manner that minimizes HAP emissions from the melting operations to the extent possible. This includes at a minimum that the owners and/or operators of the affected source will cover or enclose each melting furnace that is equipped with a cover or enclosure during melting operations to the extent practicable as required in 63.11550(a)(1)."

(2) "This facility agrees to purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundries HAP (as applicable) in the materials charged to the melting furnace, except for metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting as required by 63.11550(a)(2)."

(3) "This facility has prepared and will operate by a written management practices plan according to §63.11550(a)(3)."

(4) If the owner or operator of an existing affected source at a large foundry is certifying compliance based on the results of a previous performance test: "This facility complies with §63.11550(b) based on a previous performance test in accordance with §63.11551(b)."

(5) This certification of compliance is required by the owner or operator that installs bag leak detection systems: "This facility has installed a bag leak detection system in accordance with §63.11552(b)(3) or (c), has prepared a bag leak detection system monitoring plan in accordance with §63.11552(c), and will operate each bag leak detection system according to the plan."

(c) You must keep the records specified in paragraphs (c)(1) through (5) of this section.

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the management practices plan required by §63.11550 as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) For melting furnaces equipped with a cover or enclosure, records must identify each melting furnace equipped with a cover or enclosure and document that the procedures in the management practices plan were followed during the monthly inspections. These records may be in the form of a checklist.

(ii) Records documenting that you purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If you purchase scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, you must keep records to document that the HAP metal is included in the material specifications for the cast metal product.

(3) You must keep the records of all performance tests, inspections and monitoring data required by §§63.11551 and 63.11552, and the information identified in paragraphs (c)(3)(i) through (vi) of this section for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event;

(ii) Person conducting the monitoring;

(iii) Technique or method used;

(iv) Operating conditions during the activity;

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem (e.g., VE) to the time that monitoring indicated proper operation; and

(vi) Maintenance or corrective action taken (if applicable).

(4) If you own or operate a new or existing affected source at a small foundry that is not subject to §63.11550(b), you must maintain records to document that your facility melts less than 6,000 tpy total of copper, other nonferrous metal, and all associated alloys (excluding aluminum) in each calendar year.

(5) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. For records of annual metal melt production, you must keep the records for 5 years from the end of the calendar year. You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

(e) If a deviation occurs during a semiannual reporting period, you must submit a compliance report to your permitting authority according to the requirements in paragraphs (e)(1) and (2) of this section.

(1) The first reporting period covers the period beginning on the compliance date specified in §63.11545 and ending on June 30 or December 31, whichever date comes first after your compliance date. Each subsequent reporting period covers the semiannual period from January 1 through June 30 or from July 1 through December 31. Your compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(2) A compliance report must include the information in paragraphs (e)(2)(i) through (iv) of this section.

(i) Company name and address.

(ii) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy and completeness of the content of the report.

(iii) Date of the report and beginning and ending dates of the reporting period.

(iv) Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

Other Requirements and Information

§ 63.11555 What General Provisions apply to this subpart?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you.

§ 63.11556 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

Aluminum foundry means a facility that melts aluminum and pours molten aluminum into molds to manufacture aluminum castings (except die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten aluminum to produce simple shapes such as sows, ingots, bars, rods, or billets.

Aluminum foundry HAP means any compound of the following metals: beryllium, cadmium, lead, manganese, or nickel, or any of these metals in the elemental form.

Annual copper and other nonferrous foundry metal melt capacity means, for new affected sources, the lower of the copper and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted copper and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted copper and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted copper and other nonferrous metal melt production rate. The annual copper and other nonferrous metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with copper or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual copper and other nonferrous foundry metal melt production means, for existing affected sources, the quantity of copper and other nonferrous metal melted in melting operations at the foundry in a given calendar year. For the purposes of this subpart, metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual copper and nonferrous metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with copper and other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual metal melt capacity, for new affected sources, means the lower of the aluminum, copper, and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted aluminum, copper, and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted aluminum, copper, and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted aluminum, copper, and other nonferrous metal melt production rate. The annual metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual metal melt production means, for existing affected sources, the quantity of aluminum, copper, and other nonferrous metal melted in melting operations at the foundry in a given calendar year. For the purposes of this subpart, annual metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Bag leak detection system means a system that is capable of continuously monitoring relative PM (*i.e.*, dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative PM loadings.

Copper foundry means a foundry that melts copper or copper-based alloys and pours molten copper or copper-based alloys into molds to manufacture copper or copper-based alloy castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten copper to produce simple shapes such as sows, ingots, billets, bars, anode copper, rods, or copper cake.

Copper foundry HAP means any compound of any of the following metals: lead, manganese, or nickel, or any of these metals in the elemental form.

Deviation means any instance where an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emissions limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Die casting means operations classified under the North American Industry Classification System codes 331521 (Aluminum Die-Casting Foundries) and 331522 (Nonferrous (except Aluminum) Die-Casting Foundries) and comprises establishments primarily engaged in introducing molten aluminum, copper, and other nonferrous metal, under high pressure, into molds or dies to make die-castings.

Large foundry means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater. For a new affected source, *large foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater.

Material containing aluminum foundry HAP means a material containing one or more aluminum foundry HAP. Any material that contains beryllium, cadmium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing aluminum foundry HAP.

Material containing copper foundry HAP means a material containing one or more copper foundry HAP. Any material that contains lead or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing copper foundry HAP.

Material containing other nonferrous foundry HAP means a material containing one or more other nonferrous foundry HAP. Any material that contains chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing other nonferrous foundry HAP.

Melting operations (the affected source) means the collection of furnaces (e.g., induction, reverberatory, crucible, tower, dry hearth) used to melt metal ingot, alloyed ingot and/or metal scrap to produce molten metal that is poured into molds to make castings. Melting operations dedicated to melting ferrous metal at an iron and steel foundry are not included in this definition and are not part of the affected source.

Other nonferrous foundry means a facility that melts nonferrous metals other than aluminum, copper, or copper-based alloys and pours the nonferrous metals into molds to manufacture nonferrous metal castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten nonferrous metals to produce simple shapes such as sows, ingots, bars, rods, or billets.

Other nonferrous foundry HAP means any compound of the following metals: chromium, lead, and nickel, or any of these metals in the elemental form.

Small foundry means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons. For a new affected source, *small foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons.

§ 63.11557 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority, such as your State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or Tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or Tribal agency.

(c) The authorities that will not be delegated to State, local, or Tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the applicability requirements in §63.11544, the compliance date requirements in §63.11545, and the applicable standards in §63.11550.

(2) Approval of an alternative nonopacity emissions standard under §63.6(g).

(3) Approval of a major change to a test method under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90(a).

(4) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” is defined in §63.90(a).

(5) Approval of a waiver of recordkeeping or reporting requirements under §63.10(f), or another major change to recordkeeping/reporting. A “major change to recordkeeping/reporting” is defined in §63.90(a).

§ 63.11558 [Reserved]

Table 1 to Subpart ZZZZZZ of Part 63—Applicability of General Provisions to Aluminum, Copper, and Other Nonferrous Foundries Area Sources

As required in §63.11555, “What General Provisions apply to this subpart?,” you must comply with each requirement in the following table that applies to you.

Citation	Subject	Applies to subpart ZZZZZZ?	Explanation
§63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)–(a)(12), (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability	Yes	§63.11544(f) exempts affected sources from the obligation to obtain a title V operating permit.
§63.1(a)(5), (a)(7)–(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No	
§63.2	Definitions	Yes	
§63.3	Units and Abbreviations	Yes	
§63.4	Prohibited Activities and Circumvention	Yes	

§63.5	Preconstruction Review and Notification Requirements	Yes	
§63.6(a), (b)(1)–(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)(iii)–(e)(3)(ix), (f)(2), (f)(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes	
§63.6(f)(1)	Compliance with Nonopacity Emission Standards	No	Subpart ZZZZZZ requires continuous compliance with all requirements in this subpart.
§63.6(h)(1), (h)(2), (h)(5)–(h)(9)	Compliance with Opacity and Visible Emission Limits	No	Subpart ZZZZZZ does not contain opacity or visible emission limits.
§63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No	
§63.7	Applicability and Performance Test Dates	Yes	
§63.8(a)(1), (b)(1), (f)(1)–(5), (g)	Monitoring Requirements	Yes	
§63.8(a)(2), (a)(4), (b)(2)–(3), (c), (d), (e), (f)(6), (g)	Continuous Monitoring Systems	No	Subpart ZZZZZZ does not require a flare or CPMS, COMS or CEMS.
§63.8(a)(3)	[Reserved]	No	
§63.9(a), (b)(1), (b)(2)(i)–(iii), (b)(5), (c), (d), (e), (h)(1)–(h)(3), (h)(5), (h)(6), (j)	Notification Requirements	Yes	Subpart ZZZZZZ requires submission of Notification of Compliance Status within 120 days of compliance date unless a performance test is required.
§63.9(b)(2)(iv)–(v), (b)(4), (f), (g), (i)	No		
§63.9(b)(3), (h)(4)	Reserved	No	
§63.10(a), (b)(1), (b)(2)(i)–(v), (vii), (vii)(C), (viii), (ix), (b)(3), (d)(1)–(2), (d)(4), (d)(5), (f)	Recordkeeping and Reporting Requirements	Yes	
§63.10(b)(2)(vi), (b)(2)(vii)(A)–(B), (c), (d)(3), (e)	No	Subpart ZZZZZZ does not require a CPMS, COMS, CEMS, or opacity or visible emissions limit.	
§63.10(c)(2)–(c)(4), (c)(9)	Reserved	No	

§63.11	Control Device Requirements	No	
§63.12	State Authority and Delegations	Yes	
§§63.13–63.16	Addresses, Incorporations by Reference, Availability of Information, Performance Track Provisions	Yes	

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Part 70 Operating Permit

Source Description and Location

Source Name:	Ford Meter Box Company, Inc.
Source Location:	775 Manchester Drive, Wabash, IN 46992-0398
County:	Wabash
SIC Code:	3366, 3362
Part 70 Operating Permit No.:	T169-25077-00003
Permit Reviewer:	Laura Spriggs

Public Notice Information

On October 13, 2009, the Office of Air Quality (OAQ) had a notice published in *The Wabash Plain Dealer* in Wabash, Indiana, stating that the Ford Meter Box Company, Inc. had applied to transition from a Federally Enforceable State Operating Permit to a Part 70 Operating Permit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received

On November 12, 2009, OAQ received comments from John Flesher of the Ford Meter Box Company, Inc. The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document responses to comments and changes made from the time the permit was drafted until a final decision is made.

The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Comment 1:

Condition B.9 Annual Compliance Certification poses a truth-in-certification dilemma with certain emission limits contained in permit conditions D.1.2, D.1.3, D.1.4, D.2, D.2.1, D.2.2, D.3, and D.3.1. These conditions state specific emission limits that are to be met by the facility. These emissions limits are not measured on a regular basis nor do I believe that IDEM intends for them to be measured on a continuous or even an annual basis. However, the facility has to annually certify continuous compliance with those limits without either a direct measurement or a parametric method on which to base the certification of compliance. The permit should include language that specifically states what parameters or actions the facility will use as a basis to certify in the annual certification. This facility feels that it can certify that emission control units are being used, properly maintained, inspected as needed, and that either there are no visual

emissions or visual emissions are normal [as defined in the permit]. FMB cannot certify the facility is meeting a specific emission limit without either full testing and documentation to support that specific claim or Indiana Department of Environmental Management's agreement on parametric monitoring that FMB can use as its basis for whatever certification it makes in the annual compliance certification.

IDEM Response 1:

IDEM has included testing requirements for the Section D.1 conditions. IDEM has grouped similar units and has allowed for representative testing. IDEM feels that the testing of a representative unit along with monitoring, recordkeeping, and reporting will assure continuous compliance for all units in the representative group. Section D.2 includes record keeping and reporting requirements and Section D.3 includes compliance determination requirements. Conditions D.1.6 through D.1.14, D.2.3, D.2.4, and D.3.3 contain the compliance determination, compliance monitoring, recordkeeping, and reporting IDEM feels is necessary to assure continuous compliance. 326 IAC 2-7-6(1) requires the permit to contain "compliance certification, testing, monitoring, reporting, and record keeping requirements sufficient to assure compliance." 326 IAC 2-7-6(5) requires the Permittee to certify compliance with all terms and conditions of the permit. So, Ford Meter Box may use the conditions listed above and its actions based on those conditions as the basis for the certification, as required by 326 IAC 2-7-6(5)(C)(i). However, 326 IAC 1-1.1-6, as included in Section B - Credible Evidence, requires "any credible evidence or information relevant to whether a source would have been in compliance with the emission limitation, standard, or rule." No change is being made as a result of this comment.

Comment 2:

Condition D.1.7: Is lead testing to be done as filterable PM10?

IDEM Response 2:

Lead testing is done using USEPA method 12 or 29. It is a separate test method and cannot be run in conjunction with a PM10 test. A PM analysis can be done with either a method 12 or 29 test. The Ford Meter Box Company, Inc. has several options for running the test which can be discussed during protocol development and submittal. No change is being made as a result of this comment.

Comment 3:

Condition D.1.7(a): The permit requires PM, PM10, and lead testing within 180 days of issuance of the permit or within 180 days of the new or revised condensable PM test methods. Other conditions requiring testing in Section D specify "whichever is later" but that same wording is not in D.1.7(a). Permit condition D.1.7(a) must be revised to include "whichever is later" as in other conditions in Section D.

IDEM Response 3:

IDEM, OAQ agrees to make this change. The permit has been revised as follows:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall:

- (a) Perform PM, PM₁₀, and lead testing on the baghouse modules UU for Unit #23 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days

of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, **whichever is later**. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration. This testing shall be conducted utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM.

* * *

Comment 4:

Condition D.1.7: The facility assumes that the initial stack testing will conclude that certain data from each stack may contain parameters that are insignificant. The facility wishes to be able to remove parameters or units from the repeat testing as appropriate. A mechanism to easily accomplish this task should be included in the permit.

IDEM Response 4:

IDEM, OAQ does not remove testing requirements because a unit is well in compliance. Representative testing has been allowed so that not all units have to be tested every testing cycle. No change is being made as a result of this comment.

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:	Ford Meter Box Company, Inc.
Source Location:	775 Manchester Drive, Wabash, IN 46992-0398
County:	Wabash
SIC Code:	3366, 3362
Part 70 Operating Permit No.:	T169-25077-00003
Permit Reviewer:	Laura Spriggs, Kristen Layton

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit application from Ford Meter Box Company, Inc. relating to the operation of a captive brass foundry.

History

On July 1, 2007, Ford Meter Box Company, Inc., submitted an application to the OAQ requesting to transition from a Federally Enforceable State Operating Permit (FESOP) to a Part 70 Operating Permit. Ford Meter Box Company, Inc. was issued FESOP No. 169-5469-00003 on December 13, 1996.

Permitted Emission Units and Pollution Control Equipment

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

Charging, Melting, and Pouring/Cooling:

- (a) Unit #23, consisting of:
- (1) Six (6) 5-ton each electric channel induction furnaces, two (2) constructed in 1970, one (1) constructed in 1973, two (2) constructed in 1975, one (1) constructed in 2004, each with a 1.25 tons per hour melt capacity;
 - (2) One (1) box induction furnace, constructed in 1996, with a 0.695 ton per hour melt capacity;
 - (3) One (1) crucible induction furnace, constructed in 1993, with a 0.53 ton per hour melt capacity; and
 - (4) Pouring/Casting operations associated with seven (7) molding lines, identified as #1 Handline, #1 Harrison, #2 Harrison, #1 Sinto, #2 Sinto, #3 Sinto, and #4 Sinto, constructed in 1971, 1970, 1988, 1997, 1998, 2000, and 2004, respectively.

Due to power supply limitations the box induction furnace and crucible induction furnace cannot operate simultaneously. The total maximum melt capacity is 8.195 tons per hour. Metallic fume emissions from melting and pouring, including transfer points, controlled by nine (9) baghouse modules, identified as "UU" with a common inlet but nine (9) individual stack discharges.

Shakeout, Sand Handling, Mold Making, and Core Making:

- (b) Shakeout and Sand Handling from:
 - (1) Unit #6, including the #1 Handline and Harrison sand tanks plus the shakeout and conveyor operations for four (4) mold lines, identified as #1 Handline, #1 Harrison, #2 Harrison, and #4 Sinto, constructed in 1970 and modified in 2004, with a maximum combined throughput of 63 tons per hour, equipped with a baghouse which returns captured sand particulate back to the system, exhausting to Stack "H";
 - (2) Unit #20 sand system and shakeout, for three (3) mold lines, identified as #1 Sinto, #2 Sinto, and #3 Sinto, constructed in 1973 and modified in 1997, with a maximum combined throughput of 45 tons per hour, equipped with a baghouse which returns the captured sand particulate back to the system, exhausting to Stack "KK";
- (c) One (1) sand treatment and brass reclaim operations, identified as Unit #13, constructed in 1980, with a maximum throughput of 15 tons per hour, controlled by Baghouse "T"; and
- (d) Corerroom ventilation, identified as Unit #19, constructed in 1970 and revised in 1991, for a maximum facility melt throughput of 8.195 tons per hour, including ventilation of thirteen (13) natural gas-fired core making units with a total maximum heat input capacity of 2.464 million British Thermal Units per hour, and a sand throughput of 2.068 tons per hour.

Machining, Grinding, and Finishing:

- (e) One (1) Iron Room, identified as Unit #5, constructed in 1973, for cast iron grinding, boring and tapping operations, with a maximum throughput of 0.78 tons per hour, using Baghouse "G" for particulate emissions control;
- (f) One (1) Pangborn 12GN steel shot blast cleaner, identified as, Unit #11, constructed in 1978, with a maximum throughput of 2.73 tons per hour, using Baghouse "Q" for particulate emissions control;
- (g) One (1) Pangborn 6GN steel shot blast cleaner, identified as Unit #12, constructed in 1970, with a maximum throughput of 1.37 tons per hour, using Baghouse "S" for particulate emissions control;
- (h) One (1) continuous flow steel shot blast cleaner, identified as Unit #14, constructed in 1970, for removing sand and internal cores from castings, with a maximum casting throughput of 8.195 tons per hour, using Baghouse "U" for particulate emissions control;
- (i) One (1) foundry grinding and cut-off operations, identified as Unit #15, constructed in 1970, with a maximum throughput of 8.195 tons per hour, using Baghouse "V" for particulate emissions control;
- (j) Various machining, grinding, and polishing operations, identified as Unit #16, constructed in 1980, with a maximum throughput of 0.78 tons per hour, using Baghouse "W" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (k) Various machining, grinding, and polishing operations, identified as Unit #17, constructed in 1981, with a maximum throughput of 2.13 tons per hour, using Baghouse "X" for

capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;

- (l) Various machining, grinding, and polishing operations, identified as Unit #18, constructed in 1980, with a maximum throughput of 0.90 tons per hour, using Baghouse "Y" for capturing steel particulate;
- (m) Various machining, grinding, and polishing operations, identified as Unit #26, constructed in 1999, with a maximum throughput of 2.13 tons per hour, using Baghouse "BC" for capturing brass chips to be recycled as well as for controlling dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
- (n) One (1) shot blast machine, constructed in 2009, identified as Unit #29, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control (*Note: this unit is used as an alternative to Unit #14 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*); and
- (o) One (1) cut-off saw, approved for constructed in 2009, identified as Unit #30, with a maximum capacity of 2.0 tons per hour of no-lead brass castings, and using a cartridge filter for particulate control (*Note: this unit is used as an alternative to Unit #15 when no-lead brass is being processed. The combined maximum capacity of both units is 8.195 tons per hour*).

Combustion Units:

- (p) One (1) 100 KW spark ignition internal combustion natural gas-fired generator, constructed in 2007, used to generate electric power, with a maximum power output rate of 134.1 horsepower, firing natural gas only, using no control and exhausting to the atmosphere; and
- (q) Two (2) diesel fuel-fired 423 maximum horsepower (2.9 million British thermal Units per hour) generators, installed in 1992.

Surface Coating Operations:

- (r) One (1) Binks Teflon spray coating booth, identified as Unit #21, installed in 1980, with a maximum rate of 121.7 units per hour, using a semi-automatic air atomization application method for coating brass balls, using paper air filters for overspray control, and exhausting to Stack "OO";
- (s) One (1) nut coating operation for coating fittings, identified as Unit #27, installed in 1996, with a maximum coating rate of 1,960 units per hour, utilizing a spin coating application system; and
- (t) One (1) paint booth for miscellaneous painting and gluing activities, using brush, roller, or aerosol spray applications, with a maximum capacity of 3.75 pounds of coating per hour, using dry filters for particulate control, constructed in 2008.

Emission Units and Pollution Control Equipment Removed From the Source

Two (2) natural gas fired boilers for building heating, identified as Units #1 and #2, installed in 1980 and 1982, respectively, each with a maximum heat input capacity of 12.5 million British thermal Units per hour, capable of using No. 2 and No. 6 fuel oils as back-up fuels, and exhausting to Stack "A". Only one (1) boiler typically is in operation at a time.

Insignificant Activities

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

- (a) One (1) tool grinding operation, identified as Unit #8, vented through Baghouse "C";
- (b) Machining operations vented through Baghouse "AB";
- (c) Two (2) natural gas-fired chip dryers, each with a maximum heat input of 0.625 million British Thermal Units per hour, each with a maximum throughput of 50 pounds of volatiles per hour, and each equipped (as integral part of the equipment as determined in F169-5469-00003, issued on December 13, 1996) with a 0.425 million British Thermal Units per hour thermal oxidizer, exhausting to Stack "TT" and Stack "VV", respectively;
- (d) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million British Thermal Units per hour, including, but not limited to:

Two (2) natural gas fired boilers for building heating, identified as Units #1 and #2, installed in 2009, each with a maximum heat input capacity of 7.325 MMBtu/hr, and exhausting to Stack "A";
- (e) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six (6) million British Thermal Units per hour;
- (f) Combustion source flame safety purging on startup;
- (g) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;
- (h) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;
- (i) Vessels storing lubricating oils, hydraulic oils, machining oils, and coolant fluids;
- (j) Refractory storage not requiring air pollution control equipment;
- (k) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (l) Machining where an aqueous cutting coolant continuously floods the machining interface;
- (m) Degreasing operations, consisting of cold cleaner degreasers with remote reservoirs that were existing as of January 1, 1980, that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

- (n) Cleaners and solvents with low vapor pressure and with a combined usage of less than 145 gallons per 12 months;
- (o) Brazing equipment, cutting torch, soldering equipment and welding equipment not resulting in HAP emissions;
- (p) Closed loop heating and cooling systems;
- (q) Cutting 200.00 linear feet or less of one inch (1") plate or equivalent;
- (r) Using 80 tons or less of welding consumables;
- (s) Operations using aqueous solutions with less than 1 percent of VOCs excluding HAPs;
- (t) Water-based adhesives that are less than or equal to 5 percent VOCs by volume excluding HAPs;
- (u) Quenching operations used with heat treating processes;
- (v) Replacement or repair of electrostatic precipitators, bags in baghouse and filters in other air filtration equipment;
- (w) Heat exchanger cleaning and repair;
- (x) Paved and unpaved roads and parking lots with public access;
- (y) Purging of gas lines and vessels not associated with production process;
- (z) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup;
- (aa) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower;
- (bb) Stationary fire pumps;
- (cc) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual standard cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.
- (dd) Mold release agent using low volatile products;
- (ee) A laboratory as defined in 326 IAC 2-7-1(20)(C);
- (ff) Other activities with volatile organic compound (VOC) emissions equal to or less than 15 pounds per day, and activities with particulate matter (PM) emissions equal to or less than 25 pounds per day;
- (gg) One (1) parts washer with no VOC emissions exhausting through stack/vent "BD"; and
- (hh) One (1) powder coating booth, used for epoxy coating, with a maximum capacity of eighteen (18) units per hour, using an integral cartridge filter for particulate capture and reuse, constructed in 1993 [326 IAC 6-3-2].

Existing Approvals

Since the issuance of Federally Enforceable State Operating Permit No. F169-5469-00003 on December 13, 1996, the source has constructed or has been operating under the following approvals as well:

- (a) Administrative Amendment No. 169-10615-00003, issued on March 8, 1999;
- (b) Administrative Amendment No. 169-11779-00003, issued on February 10, 2000;
- (c) Administrative Amendment No. 169-13843-00003, issued on April 6, 2001;
- (d) Administrative Amendment No. 169-17243-00003, issued on April 17, 2003;
- (e) Significant Permit Revision No. 169-18446-00003, issued on July 19, 2004;
- (f) Administrative Amendment No. 169-20252-00003, issued on December 10, 2004;
- (g) Administrative Amendment No. 169-22003-00003, issued on January 4, 2006;
- (h) Administrative Amendment No. 169-25416-00003, issued on December 4, 2007;
and
- (i) Significant Permit Revision No. 169-27137-00003, issued on March 3, 2009.

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

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

- (a) All construction conditions from all previously issued permits.

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

- (b) All FESOP conditions.

Reason not incorporated: The source is transitioning to a Part 70 Operating Permit; therefore, the FESOP limits are no longer applicable.

Air Pollution Control Justification as an Integral Part of the Process

The following determination was made in Significant Permit Revision No.: 169-27137-00003:

The Permittee has submitted the following information to justify why the cartridge baghouse should be considered an integral part of the powder coating operation:

The powder coating recovery system (consisting of the cartridge baghouse) should be considered integral to the normal operation of the coating booth since there is a significant economic benefit gained by collecting and re-using the powder coating. Based on a total annual operational and maintenance cost for the recovery system of \$2,803, a

powder coating unit cost of \$3.08 per pound, and a powder re-use rate of 1.56 pounds per hour, the number of hours needed each year to recover the annual operational cost would be approximately 583 hours.

IDEM, OAQ has evaluated the information submitted and agrees that the cartridge baghouse should be considered an integral part of the powder coating operation. Therefore, the permitting level will be determined using the potential to emit after the cartridge baghouse. Operating conditions in the proposed permit will specify that this cartridge baghouse shall operate at all times when the powder coating unit is in operation.

Enforcement Issue

IDEM is aware that the potential to emit carbon monoxide (CO) from the pouring, cooling, and shakeout (PCS) processes exceed the levels allowed under a FESOP permit. These emissions were previously unknown or unidentified. On August 11, 2006, IDEM sent a Notice of Limited Self-Disclosure Opportunity for CO Emissions from PCS Operations within the Foundry Sector to foundries in Indiana to give them the opportunity to identify these potential emissions and apply for the appropriate permit or permit modification. The notice stated that if the foundry chose to take advantage of the opportunity, consistent with the CO Emissions Guidelines, IDEM shall not seek either gravity-based or economic benefit of non-compliance-based civil penalties against such sources. The Permittee has chosen to transition from a FESOP permit to a Title V permit as a result of this evaluation. No enforcement actions are pending as a result of this application.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Wabash County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, 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 October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(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, and 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. Wabash 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) **PM_{2.5}**
Wabash County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**
Wabash County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) This source is classified as a captive brass foundry, but it is not considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1), because the plant does not use scrap metal.
- (e) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not 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	4649.2
PM ₁₀	780.2
SO ₂	23.2
VOC	96.7
CO	253.8
NO _x	173.0

HAPs*	tons/year
Dimethylformamide	1.6
Ethylene Glycol	8.36
Formaldehyde	0.40
Lead	82.13
Manganese	0.81
Toluene	2.4
Total	98.4

*Additional HAPs with unrestricted potential emissions less than 0.1 tons per year are included in Appendix A to the TSD.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM₁₀, CO, and SO₂ is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the source has agreed to limit their single HAP emissions and total HAP emissions below Title V limits; therefore, the source is an area source under Section 112 of the Clean Air Act.
- (d) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not 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.

Process/ Emission Unit	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Lead
Unit #23 - Furnace charging, melting, pouring	25.0 ^a	25.0 ^b	0.72	5.03	215.4	0.36	2.40 ^c
Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	15.0 ^a	15.0 ^b	--	21.54		--	0.15 ^c
Unit # 20 - Sand handling and shakeout for #1, #2, #3 Sintos	15.0 ^a	15.0 ^b	--	21.54		--	0.15 ^c
Unit #13 - Sand Treatment and Brass Reclaim Operations	10.0 ^a	10.0 ^b	--	--	--	--	0.04 ^c
Unit #19 - Coreroom ventilation	39.5	32.39	0.35	3.17	0.91	19.03	5.0E-06

Process/ Emission Unit	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Lead
Unit #5 - Iron room	2.0 ^a	2.0 ^b	--	--	--	--	0.02 ^c
Unit #11 - Shotblasting	5.0 ^a	5.0 ^b	--	--	--	--	0.52 ^c
Unit #12 - Shotblasting	2.0 ^a	2.0 ^b	--	--	--	--	0.26 ^c
Unit #14 - Shotblasting	15.0 ^a	15.0 ^b	--	--	--	--	0.08 ^c
Unit #15 - Grinding and cut-off	15.0 ^a	15.0 ^b	--	--	--	--	1.50 ^c
Unit #16 - Machining, grinding & polishing	3.0 ^a	3.0 ^b	--	--	--	--	0.24 ^c
Unit #17 - Machining, grinding & polishing	10.0 ^a	10.0 ^b	--	--	--	--	1.34 ^c
Unit #18 - Machining, grinding & polishing	3.0 ^a	3.0 ^b	--	--	--	--	0.28 ^c
Unit #26 - Machining, grinding & polishing	10.0 ^a	10.0 ^b	--	--	--	--	1.34 ^c
100 kW Generator	0.050	0.0004	0.003	0.59	2.80	20.52	--
Two 423 hp Generators ^d	0.47	0.47	0.43	0.52	1.41	6.56	--
Unit #21 - Binks Teflon spray coating booth	0.40 ^e	0.40 ^e	--	11.95	--	--	--
Unit #27 - Nut coating operation	--	--	--	2.58	--	--	--
Misc. painting and gluing activities	2.64	2.64	--	10.3	--	--	--
Insignificant activities	11.98	11.60	14.51	10.81	9.92	18.19	0.01
Unit #29 - Shot Blast Unit	5.0 ^a	5.0 ^b	--	--	--	--	0.10 ^c
Unit #30 - Cut-Off Saw	5.0 ^a	5.0 ^b	--	--	--	--	0.10 ^c
Total	195.0	187.50	16.0	88.0	230.4	64.7	8.55
PSD Major Source Threshold	250	250	250	250	250	250	25

- (a) PM is limited such that the limited potential to emit PM, combined with the potential to emit PM from other units at the source, shall be less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable. The limited values shown are less than the uncontrolled potential to emit, but greater than the potential to emit after control.
- (b) PM₁₀ is limited such that the limited potential to emit PM₁₀, combined with the potential to emit PM₁₀ from other units at the source, shall be less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable. The limited values shown are less than the uncontrolled potential to emit, but greater than the potential to emit after control.
- (c) Lead is limited such that the limited potential to emit lead, combined with the potential to emit lead from other units at the source, shall be less than ten (10) tons per twelve (12) consecutive month period for lead and less than twenty-five (25) tons per twelve (12) consecutive month period for total HAPs and render this an area source. Compliance with these limits shall also render 326 IAC 2-2 not applicable. The limited values shown are less than the uncontrolled potential to emit, but greater than the potential to emit after control.

- (d) The hours of operation of the generators are limited to 500 hours per twelve (12) consecutive month period each. Compliance with the limited hours of operation for the generators shall limit the potential to emit CO from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable. The limited values shown are less than the uncontrolled potential to emit.
- (e) Pursuant to 326 IAC 6-3-2(d), particulate from the Binks Teflon spray coating operation (unit #21) shall be controlled by a dry particulate filter, waterwash, or equivalent control device. Unit #21 uses dry filters for particulate control. The values shown for PM and PM₁₀ are based on controlled emissions, assuming 90% control.

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

The following is a discussion of the federal rule applicability for this source:

Compliance Assurance Monitoring (CAM)

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

The following tables are 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:

CAM Applicability Analysis - PM							
Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Unit #23 - Furnace charging, melting, pouring	Y - BH	Y	204.60	22.51	100	Y	N
Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	Y - BH	Y	1,050.81	10.51	100	Y	N

CAM Applicability Analysis - PM							
Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Unit # 20 - Sand handling and shakeout for #1, #2, #3 Sintos	Y - BH	Y	766.99	7.67	100	Y	N
Unit #13 - Sand Treatment and Brass Reclaim Operations	Y - BH	Y	236.52	2.37	100	Y	N
Unit #5 - Iron room	Y - BH	Y	58.08	0.58	100	N	N
Unit #11 - Shotblasting	Y - BH	Y	203.28	2.03	100	Y	N
Unit #12 - Shotblasting	Y - BH	Y	102.01	1.02	100	Y	N
Unit #14 - Shotblasting	Y - BH	Y	610.20	6.10	100	Y	N
Unit #15 - Grinding and cut-off	Y - BH	Y	610.20	6.10	100	Y	N
Unit #16 - Machining, grinding & polishing	Y - BH	Y	58.08	0.58	100	N	N
Unit #17 - Machining, grinding & polishing	Y - BH	Y	158.65	1.59	100	Y	N
Unit #18 - Machining, grinding & polishing	Y - BH	Y	67.01	0.67	100	N	N
Unit #26 - Machining, grinding & polishing	Y - BH	Y	158.65	1.59	100	Y	N
Unit #21 - Binks Teflon spray coating booth	Y - DF	Y	3.99	0.40	100	N	N
Misc. painting and gluing activities	Y - DF	N	2.64	0.01	100	N/A	N/A
Unit #29 - Shot Blast Unit	Y-CF	Y	148.92	1.49	100	Y	N
Unit #30 - Cut-Off Saw	Y-CF	Y	148.92	1.49	100	Y	N

BH = Baghouse
CF= Cartridge Filter
DF = Dry Filters

CAM Applicability Analysis - PM ₁₀							
Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Unit #23 - Furnace charging, melting, pouring	Y - BH	Y	117.73	12.95	100	Y	N
Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	Y - BH	Y	189.21	1.89	100	Y	N
Unit # 20 - Sand handling and shakeout for #1, #2, #3 Sintos	Y - BH	Y	146.64	1.47	100	Y	N
Unit #13 - Sand Treatment and Brass Reclaim Operations	Y - BH	Y	35.48	0.35	100	N	N
Unit #5 - Iron room	Y - BH	Y	5.81	0.06	100	N	N
Unit #11 - Shotblasting	Y - BH	Y	20.33	0.20	100	N	N
Unit #12 - Shotblasting	Y - BH	Y	10.20	0.10	100	N	N
Unit #14 - Shotblasting	Y - BH	Y	61.02	0.61	100	N	N
Unit #15 - Grinding and cut-off	Y - BH	Y	61.02	0.61	100	N	N
Unit #16 - Machining, grinding & polishing	Y - BH	Y	5.81	0.06	100	N	N
Unit #17 - Machining, grinding & polishing	Y - BH	Y	15.87	0.16	100	N	N
Unit #18 - Machining, grinding & polishing	Y - BH	Y	6.70	0.07	100	N	N
Unit #26 - Machining, grinding & polishing	Y - BH	Y	15.87	0.16	100	N	N
Unit #21 - Binks Teflon spray coating booth	Y - DF	N	3.99	0.40	100	N/A	N/A
Misc. painting and gluing activities	Y - DF	N	2.64	0.01	100	N/A	N/A
Unit #29 - Shot Blast Unit	Y-CF	Y	14.89	0.15	100	N	N
Unit #30 - Cut-Off Saw	Y-CF	Y	14.89	0.15	100	N	N

BH = Baghouse
CF= Catridge Filter
DF = Dry Filters

CAM Applicability Analysis - Lead							
Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Unit #23 - Furnace charging, melting, pouring	Y - BH	Y	13.11	1.44	10	Y	N
Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	Y - BH	Y	3.27	0.07	10	N	N
Unit # 20 - Sand handling and shakeout for #1, #2, #3 Sintos	Y - BH	Y	2.39	0.05	10	N	N
Unit #13 - Sand Treatment and Brass Reclaim Operations	Y - BH	Y	0.47	0.009	10	N	N
Unit #5 - Iron room	Y - BH	Y	0.25	0.005	10	N	N
Unit #11 - Shotblasting	Y - BH	Y	6.10	0.12	10	N	N
Unit #12 - Shotblasting	Y - BH	Y	3.06	0.06	10	N	N
Unit #14 - Shotblasting	Y - BH	Y	0.92	0.02	10	N	N
Unit #15 - Grinding and cut-off	Y - BH	Y	29.90	0.60	10	Y	N
Unit #16 - Machining, grinding & polishing	Y - BH	Y	2.87	0.06	10	N	N
Unit #17 - Machining, grinding & polishing	Y - BH	Y	7.85	0.16	10	N	N
Unit #18 - Machining, grinding & polishing	Y - BH	Y	3.32	0.07	10	N	N
Unit #26 - Machining, grinding & polishing	Y - BH	Y	7.85	0.16	10	N	N
Unit #29 - Shot Blast Unit	Y-CF	Y	0.37	0.007	10	N	N
Unit #30 - Cut-Off Saw	Y-CF	Y	0.37	0.007	10	N	N

BH = Baghouse
CF= Cartridge Filter

- (1) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the following units for PM upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.
 - (A) Unit #23 - Furnace charging, melting, pouring
 - (B) Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines
 - (C) Unit #20 - Sand handling and shakeout for #1, #2, #3 Sintos
 - (D) Unit #13 - Sand Treatment and Brass Reclaim Operations
 - (E) Unit #11 - Shotblasting
 - (F) Unit #12 - Shotblasting
 - (G) Unit #14 - Shotblasting
 - (H) Unit #15 - Grinding and cut-off
 - (I) Unit #17 - Machining, grinding & polishing
 - (J) Unit #26 - Machining, grinding & polishing
 - (K) Unit #29 - Shot Blast Unit
 - (L) Unit #30 - Cut-Off Saw

- (2) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the following units for PM₁₀ upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.
 - (A) Unit #23 - Furnace charging, melting, pouring
 - (B) Unit #6 - #1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines
 - (C) Unit #20 - Sand handling and shakeout for #1, #2, #3 Sintos

- (3) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the following units for lead upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.
 - (A) Unit #23 - Furnace charging, melting, pouring
 - (B) Unit #15 - Grinding and cut-off

New Source Performance Standards (NSPS)

- (b) The requirements of the New Source Performance Standard for Secondary Brass and Bronze Production Plants, 40 CFR 60.130, Subpart M, are not included in the permit because this subpart does not apply to foundry furnaces from which molten brass or bronze are cast into the shape of finished products.

- (c) The requirements of the New Source Performance Standard for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, 40 CFR 60.40, Subpart D, are not included in the permit for the two (2) 7.325 MMBtu/hr boilers because they each have a heat input rate of less than 250 MMBtu/hr.

- (d) The requirements of the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40b, Subpart Db, do not apply to the two (2) 7.325 MMBtu/hr boilers (Units #1 and #2) because they have heat input capacities of less than 100 MMBtu/hr.

- (e) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40c, Subpart Dc, do not

apply to the two (2) 7.325 MMBtu/hr boilers (Units #1 and #2) because they have heat input capacities of less than 10 MMBtu/hr.

- (f) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60.4200, Subpart IIII, are not included in the permit for the two (2) 423 hp generators because they were constructed in 1992 and pre-date the applicability requirements of this subpart.
- (g) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60.4230, Subpart JJJJ, are not included in the permit for the 100 KW (134 HP) spark ignition internal combustion natural gas-fired generator because it was manufactured prior to July 1, 2008 (manufacture date is December 14, 2007).
- (h) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60.110, Subpart K, does not apply to any storage vessels at the source because no storage vessel for petroleum liquid exceeds a storage capacity of 40,000 gallons.
- (i) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984, 40 CFR 60.110a, Subpart Ka, does not apply to any storage vessels at the source because no storage vessel for petroleum liquid exceeds a storage capacity of 40,000 gallons.
- (j) The requirements of the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60.110b, Subpart Kb, does not apply to any storage vessels at the source because no volatile organic liquid storage vessel exceeds a storage capacity of 75 cubic meters (19,813 gallons).
- (k) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR 60.730, Subpart UUU, are not included in the permit because Ford Meter Box does not use calciners or dryers, as defined in 40 CFR 60.731, to remove water from the mold or core sand.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (l) The requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, 40 CFR 53.7680, Subpart EEEEE, do not apply to this source because it is a captive brass foundry, not an iron or steel foundry.
- (m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources, 40 CFR 63.10880, Subpart ZZZZZ, do not apply to this source because it is a captive brass foundry, not an iron or steel foundry.
- (n) The requirements of the National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources, 40 CFR 63.11462, Subpart TTTTTT, are not included in the permit for this source because this source does not meet the definition of a secondary nonferrous metals processing facility, pursuant to 40 CFR 63.11472.

- (o) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63.3880, Subpart MMMM, are not included in the permit for the surface coating facilities at this source because this source has taken limits to be an area source.
- (p) The requirements of the National Emission Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, Subpart HHHHHH are not included in the permit for surface coating facilities because these units are not used to perform spray application of coatings to motor vehicles or mobile equipment. In addition the coatings used at the surface coating facilities do not contain target HAPs, as defined in 40 CFR 63.11180.
- (q) National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580, Subpart ZZZZ
 - (1) The two (2) 423 hp diesel generators are subject to 40 CFR 63, Subpart ZZZZ, but, pursuant to 40 CFR 63.6590(b)(3), existing compression ignition stationary reciprocating internal combustion engines do not have to meet the requirements of Subpart ZZZZ or Subpart A and no initial notification is necessary. On March 5, 2009, EPA proposed modifications to 40 CFR 63, Subpart ZZZZ, which would require the generators to meet certain provisions of the rule, as proposed. Once the rule is final, Ford Meter Box shall apply to have the appropriate provisions incorporated into the permit as applicable.
 - (2) The 100 KW (134 HP) spark ignition internal combustion natural gas-fired generator is subject to 40 CFR, Subpart ZZZZ. Pursuant to 40 CFR 63.6590(a)(2)(iii), the generator is considered a new stationary RICE because it is located at an area source of HAPs, has a site rating less than or equal to 500 HP, and commenced construction of the RICE after June 12, 2006. Pursuant to 40 CFR 63.6590(c), a new stationary RICE located at an area source must meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ for spark ignition internal combustion engines. As discussed in paragraph (g) above, the generator is not subject to 40 CFR, Subpart JJJJ. The generator is subject to 40 CFR 63, Subpart ZZZZ; however, there are no requirements for the generator as of now. The rule is not being included as part of the permit.
- (r) This source is subject to the National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries (40 CFR 63, Subpart ZZZZZZ). This area source MACT, applies to aluminum, copper, and other nonferrous foundries that are area sources of HAPs; that use materials that contain or have the potential to emit one or more aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP; and the aluminum, copper, or nonferrous foundry melts at least 600 tons per year of metal. Ford Meter Box Company meets the definition of a copper foundry because it melts copper-based alloys and pours copper-based alloys into molds to manufacture copper-based alloy castings. It also uses materials that have the potential to emit a copper foundry HAP (lead and manganese). Ford Meter Box Company melts more than 600 tons per year of metal and has taken limits to be an area source. Therefore, the melting operations at Ford Meter Box Company are subject to 40 CFR 63, Subpart ZZZZZZ, as an existing affected source because construction commenced before February 9, 2009. Ford Meter Box Company is also considered a large foundry because it has an annual metal melt production of copper-based alloys of greater than 6,000 tons.

Pursuant to 40 CFR 63.11545, the Permittee shall comply with the requirements of 40 CFR 63, Subpart ZZZZZZ no later than June 27, 2011.

The entire rule has been included as Attachment A to the permit. The source is subject to the following provisions of 40 CFR 63, Subpart ZZZZZZ:

- (1) 40 CFR 63.11544(a)(2), (a)(4)(i), (b), (c);
- (2) 40 CFR 63.11545(a);
- (3) 40 CFR 63.11550(a), (b)(1), (d);
- (4) 40 CFR 63.11551;
- (5) 40 CFR 63.11552;
- (6) 40 CFR 63.11553;
- (7) 40 CFR 63.11555;
- (8) 40 CFR 63.11556;
- (9) 40 CFR 63.11557; and
- (10) Table 1 to 40 CFR 63, Subpart ZZZZZZ.

State Rule Applicability - Entire Source

The following is a discussion of state rule applicability for this source:

326 IAC 2-2 (Prevention of Significant Deterioration)

Ford Meter Box began operation in 1971. Therefore, emission units existing as of August 1977 were not subject to PSD BACT analysis. Although it is a captive brass foundry, IDEM, OAQ has determined that Ford Meter Box is not a secondary metal production facility (not one of the 28 source categories) because the plant does not use scrap metal. The maximum potential melt rate has increased as follows over the years:

Year	Total Plant Potential Melt Rate (ton/hr)
1971	1.25
1973	2.50
1975	3.75
1977	5.00
1978	6.25
1996	6.95
2004	8.20

Actual melt rates are included in Appendix A to this TSD.

- (a) Carbon Monoxide
Carbon monoxide (CO) emissions from pouring, cooling, and shakeout operations were previously unidentified, as discussed in the Enforcement Issues section. Ford Meter Box has chosen to use an emission factor of 6 pounds of CO per ton of metal for determining potential CO emissions. Based on the current maximum plant melt rate capacity, the total source potential CO emissions exceed the Part 70 major source threshold (100 tons per year) and greater than the PSD major source threshold (250 tons per year). However, the Source has agreed to the following CO limits, established pursuant to this Part 60 Operating Permit No. T169-25077-0003, so that compliance with the limits, combined with the potential to emit CO from other emission units at the source, shall limit the CO from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

The hours of operation for the two (2) diesel fuel-fired 423 horsepower generators shall not exceed 500 hours per per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

- (b) **PM and PM₁₀**
The uncontrolled potential to emit of both PM and PM₁₀ exceeds the PSD major source threshold of 250 tons per year. Past permit approvals have limited PM to less than 250 tons per twelve (12) consecutive month period and PM₁₀ to less than 100 tons twelve (12) consecutive month period to render this a minor source under PSD and Part 70 (for PM₁₀). The source has agreed to the following PM and PM₁₀ limits, established pursuant to this Part 70 Operating Permit No. T169-25077-00003, so that compliance with the limits, combined with the potential to emit PM and PM₁₀ from other emission units at the source, shall limit the PM and PM₁₀ from the entire source to less than 250 tons per twelve (12) consecutive month period each and render 326 IAC 2-2 not applicable.

Emissions Unit	PM Emission Limit (lb/hr)	PM ₁₀ Emission Limit (lb/hr)
Unit #23: Furnace Charging, Melting and Pouring	5.71	5.71
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	3.42	3.42
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	3.42	3.42
Unit #13: Sand Treatment and Brass Reclaim Operations	2.28	2.28
Unit #5: Iron Room	0.46	0.46
Unit #11: Shot Blasting	1.14	1.14
Unit #12: Shot Blasting	0.46	0.46
Unit #14: Shot Blasting	3.42	3.42
Unit #15: Grinding and Cut-Off	3.42	3.42
Unit #16: Machining, Grinding, and Polishing	0.68	0.68
Unit #17: Machining, Grinding, and Polishing	2.28	2.28
Unit #18: Machining, Grinding, and Polishing	0.68	0.68
Unit #26: Machining, Grinding, and Polishing	2.28	2.28
Unit #29: Shot blast machine	1.14	1.14
Unit #30: Cut-off saw	1.14	1.14

- (c) **Lead**
The uncontrolled potential to emit lead exceeds the PSD major source threshold of twenty-five (25) tons per year. Past permit approvals have limited lead to less than ten (10) tons per twelve (12) consecutive month period to render this a minor source under PSD and to render this an area source of HAPs. The source has agreed to the following lead limits, established pursuant to this Part 70 Operating Permit No. T169-25077-00003, so that compliance with the limits, combined with the potential to emit lead from other emission units at the source, shall limit the lead from the entire source to less than twenty-five (25) tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

Emissions Unit	Lead Emission Limit (lb/hr)
Unit #23: Furnace Charging, Melting and Pouring	0.548
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	0.034
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	0.034
Unit #13: Sand Treatment and Brass Reclaim Operations	0.009
Unit #5: Iron Room	0.005

Emissions Unit	Lead Emission Limit (lb/hr)
Unit #11: Shot Blasting	0.119
Unit #12: Shot Blasting	0.059
Unit #14: Shot Blasting	0.018
Unit #15: Grinding and Cut-Off	0.342
Unit #16: Machining, Grinding, and Polishing	0.056
Unit #17: Machining, Grinding, and Polishing	0.306
Unit #18: Machining, Grinding, and Polishing	0.064
Unit #26: Machining, Grinding, and Polishing	0.306
Unit #29: Shot blast machine	0.023
Unit #30: Cut-off saw	0.023

- (c) Other Pollutants
The uncontrolled potential to emit of other pollutants is less than the PSD major source thresholds. Therefore, no additional limits are necessary to render this a minor source under 326 IAC 2-2.

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

The source is subject to 326 IAC 1-5-2.

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source is subject to 326 IAC 1-6-3.

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 after. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary 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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

The Permittee has chosen to limit HAPs emissions from the operation of this stationary captive brass foundry to less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to any units at this source.

State Rule Applicability – Individual Facilities

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

326 IAC 6-2-4 applies to indirect heating facilities receiving permits to construct on or after September 21, 1983. The requirements of 326 IAC 6-2-4 apply to the two (2) 7.325 MMBtu/hr boilers (Units #1 and #2). Particulate emissions from Units # 1 and #2 shall be limited to 0.41 lb/MMBtu each.

These limitations were based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
 Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q = 7.325 MMBtu/hr for Unit #1 + 7.325 MMBtu/hr for Unit #2 = 14.65 MMBtu/hr for each boiler.

Based on the AP-42 PM emission factor for natural gas combustion, each boiler is capable of complying with the above 326 IAC 6-2-4 particulate emission limitation.

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

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

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

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

or

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

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

Process Description	Process Weight Rate (ton/hr)	326 IAC 6-3-2 Allowable (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Controlled PM Emissions (lb/hr)	Capable of Compliance (Y/N)
Furnace Charging, Melting, and Pouring (Unit #23)	8.195	16.78	46.7	5.14	Y - with control device
#1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	67.10	47.36	239.9	2.40	Y - with control device

Process Description	Process Weight Rate (ton/hr)	326 IAC 6-3-2 Allowable (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Controlled PM Emissions (lb/hr)	Capable of Compliance (Y/N)
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	49.10	44.41	175.1	1.75	Y - with control device
Sand Treatment and Brass Reclaim Operations (Unit #13)	15.00	25.16	54.0	0.54	Y - with control device
Coreroom Ventilation (Unit #19)	10.263	19.51	9.0	9.01	Y
Iron Room (Unit #5)	0.78	3.47	13.3	0.13	Y - with control device
Shotblasting (Unit #11)	2.73	8.04	46.4	0.46	Y - with control device
Shotblasting (Unit #12)	1.37	5.06	23.3	0.23	Y - with control device
Shotblasting (Unit #14)	8.195	16.78	139.3	1.39	Y - with control device
Grinding & Cut-Off (Unit #15)	8.195	16.78	139.3	1.39	Y - with control device
Machining, Grinding, & Polishing (Unit #16)	0.78	3.47	13.3	0.13	Y - with control device
Machining, Grinding, & Polishing (Unit #17)	2.13	6.80	36.2	0.36	Y - with control device
Machining, Grinding, & Polishing (Unit #18)	0.90	3.82	15.3	0.15	Y - with control device
Machining, Grinding, & Polishing (Unit #26)	2.13	6.80	36.2	0.36	Y - with control device
Shot Blast Unit (Unit #29)	2.00	6.52	34.0	0.34	Y - with control device
Cut-off Saw (Unit #30)	2.00	6.52	34.0	0.34	Y - with control device
Powder Coating Booth	0.037	0.45	1.57	0.008	Y - with control device

Unit #19 is capable of complying with the 326 IAC 6-3-2 allowable PM emissions without a control device. Units #5, #6, #11-#18, #20, #23, #26, #29, #30 and the powder coating booth are capable of complying with the 326 IAC 6-3-2 allowable PM emissions after control. The control devices for Units #5, #6, #11-#18, #20, #23, #26, #29, #30, and the powder coating booth shall be in operation at all times the units they control are in operation, in order to comply with the above limits.

- (b) Pursuant to 326 IAC 6-3-2(d), the particulate matter (PM) from the Binks Teflon Spray Coating Booth, Unit #21, shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and the source shall operate the control device in accordance with manufacturer's specifications. This emission unit uses paper air filters for PM control.
- (c) Pursuant to 326 IAC 6-3-1(b)(5), (6), (8), and (12), the provisions of 326 IAC 6-3 do not apply to surface coating using dip coating, roll coating, brush coating, or applications of aerosol coating products to repair minor surface damage and imperfections. Therefore, the paint booth which houses miscellaneous painting and gluing activities and the nut coating operation, Unit #27, are not subject to the requirements of 326 IAC 6-3.

- (d) The provisions of 326 IAC 6-3 do not apply to non-manufacturing processes. The tool grinding operation (Unit #8), brazing equipment, cutting torches, soldering equipment, welding equipment not resulting in HAP emissions, cutting 200 linear feet or less of one inch plate or equivalent are not manufacturing process. Therefore, the provisions of 326 IAC 6-3 does not apply to these activities.
- (e) Pursuant to 326 IAC 6-3-2(e)(2), when the process weight rate is less than 100 pounds per hour, the allowable rate of emission is 0.551 pound per hour.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-1(a)(2), in Wabash County, the provisions of 326 IAC 8-2-9 (Miscellaneous Metal Coating) apply to units of the type described in section 9 that commenced construction after November 1, 1980 which have potential emissions of twenty-five (25) tons or greater per year of VOC.

- (a) The Binks Teflon spray coating booth, identified as Unit #21, was constructed before November 1, 1980; therefore, provisions of 326 IAC 8-2-9 are not applicable to Unit #21.
- (b) The nut coating operation, identified as Unit #27, has a potential VOC emissions of 2.58 tons per year; therefore, the provisions of 326 IAC 8-2-9 are not applicable to Unit #27.
- (c) The paint booth housing miscellaneous painting and gluing activities, has potential VOC emissions of 10.3 tons per year; therefore, the provisions of 326 IAC 8-2-9 are not applicable to this unit.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The provisions of 326 IAC 8-3 do not apply to facilities that were existing prior to January 1, 1980 in Wabash County. Therefore, the requirements of 326 IAC 8-3 (organic solvent degreasing operations) do not apply to the degreasing operations that do not exceed 145 gallons per 12 months.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

The provisions of 326 IAC 8-4-3 apply to all new sources of petroleum liquid storage vessels as of January 1, 1980, with capacities greater than 39,000 gallons containing VOC whose true vapor pressure is greater than 1.52 psi. The storage tank at the petroleum fuel dispensing facility has a capacity of less than 39,000 gallons; therefore, the provisions of 326 IAC 8-4-3 do not apply.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The provisions of 326 IAC 8-9 apply to stationary vessels used to store volatile organic liquid, on and after October 1, 1995, located in Clark, Floyd, Lake, or Porter Counties. Ford Meter Box Company is located in Wabash County; therefore, the provisions of 326 IAC 8-9 do not apply to any volatile organic liquid storage vessels at this source.

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

The provisions of 326 IAC 8-1-6 apply to new facilities as of January 1, 1980 that have potential emissions of twenty-five (25) tons or more per year of VOC; are located anywhere in the state; and that are not otherwise regulated by other provisions of article 8, 326 IAC 20-48, or 326 IAC 20-56. Below are the units with VOC emissions that were installed after January 1, 1980:

- (a) The Binks Teflon Spray Coating Booth, Unit #21, installed in 1980, has potential emissions of 11.95 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 are not applicable to Unit #21.

- (b) The nut coating operation, Unit #27, installed in 1996, has potential emissions of 2.58 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 are not applicable to Unit #27.
- (c) One (1) core machine with maximum sand throughput of 395 pounds per hour, approved for construction in 2001, has potential emissions of 2.83 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 do not apply to this unit.
- (d) One (1) core machine with maximum sand throughput of 395 pounds per hour, approved for construction in 2003, has potential emissions of 2.83 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 do not apply to this unit.
- (e) One (1) electric channel induction melt furnace, with a melt capacity of 1.25 tons per hour, approved for construction in 2004, has potential emissions of 7.37 tons per year of VOC based on pouring and shakeout operations; therefore, the requirements of 326 IAC 8-1-6 do not apply to this unit.
- (f) One (1) core machine with maximum sand throughput of 375 pounds per hour, approved for construction in 2004, has potential emissions of 2.68 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 do not apply to this unit.
- (g) One (1) core machine with maximum sand throughput of 395 pounds per hour, approved for construction in 2006, has potential emissions of 2.83 tons per year of VOC; therefore, the requirements of 326 IAC 8-1-6 do not apply to this unit.

326 IAC 9 (Carbon Monoxide Emission Rules)

326 IAC 9 (Carbon Monoxide Emission Rules) applies to stationary sources of carbon monoxide emissions commencing operation after March 21, 1972, and for which an emission limit has been established under 326 IAC 9-1-2. Emission limits have been established in 326 IAC 9-1-2 for petroleum refining, ferrous metal smelters, and refuse incineration and refuse burning equipment. None of the processes for which emission limits have been established in 326 IAC 9-1-2 are applicable to the emission units at Ford Meter Box. Therefore, the requirements of 326 IAC 9 do not apply to any emission units at this source.

326 IAC 10 (Nitrogen Oxide Rules)

- (a) 326 IAC 10-1 (Nitrogen Oxide Control in Clark and Floyd Counties) applies to sources of NO_x Emissions located in Clark or Floyd Counties. Ford Meter Box is located in Wabash County; therefore, the requirements of 326 IAC 10-1 do not apply to any of the emission units at Ford Meter Box.
- (b) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories) applies to certain Portland cement kilns, specific boilers, and any other blast furnace gas fired boiler with a heat input greater than 250 MMBtu/hr. None of the units at Ford Meter Box falls into these categories; therefore, the requirements of 326 IAC 10-3 do not apply to Ford Meter Box.

326 IAC 11-1 Emission Limitations for Existing Foundries

The provisions of 326 IAC 11-1 apply to foundry cupolas from foundries in operation on or before December 6, 1968. This foundry utilizes induction furnaces and not cupolas; therefore the provisions of 326 IAC 11-1 do not apply to this source.

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 Determination Requirements applicable to this source are as follows:

- (1) Units #5, #6, #11-#18, #20, #23, #26, #29, #30, and the powder coating booth have applicable Compliance Determination requirements as specified below:
 - (a) In order to comply with permit Conditions D.1.2, D.1.3, D.1.4, and D.3.1(b), the baghouses and cartridge filters for particulate control shall be in operation and control emissions from Units #5, #6, #11-#18, #20, #23, #26, #29, #30, and the powder coating booth at all times these units are in operation.
 - (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

These requirements are required to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), to render 326 IAC 2-2 (PSD) not applicable, to render 326 IAC 2-4.1 not applicable, and to render this source an area source under Section 112 of the Clean Air Act (CAA).

- (2) Unit #23 has the following compliance determination requirement:

In order to demonstrate compliance with permit Conditions D.1.2, D.1.3, and D.1.4 the Permittee shall perform PM, PM₁₀, and lead testing on the baghouse modules UU for Unit #23 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration. This testing shall be conducted utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM.

- (3) Units #5, #6, #11-#18, #20, #26, #29, and #30 have applicable Testing requirements as specified below:

In order to demonstrate compliance with permit Conditions D.1.2, D.1.3, and D.1.4 the Permittee shall:

- (a) Perform PM, PM₁₀, and lead testing for baghouse H for Unit #6 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group A, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group A has been tested. PM₁₀ includes filterable and condensable PM.

Group A Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	H
Unit #20: Shakeout and Sand Handling for #1, #2, #3 Sintos	KK
Unit #13: Sand Treatment and Brass Reclaim Operations	T

- (b) Perform PM, PM₁₀, and lead testing for baghouse V for Unit #15 within 180 days of issuance of Part 70 Operating Permit No. T169-25077-00003 or within 180 days publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group B, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group B has been tested. PM₁₀ includes filterable and condensable PM.

Group B Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #15: Grinding and Cut-Off	V
Unit #5: Iron Room	G
Unit #16: Machining, Grinding, and Polishing	W
Unit #17: Machining, Grinding, and Polishing	X
Unit #18: Machining, Grinding, and Polishing	Y
Unit #26: Machining, Grinding, and Polishing	BC
Unit #30: Cut-off saw	Unit #30 cartridge filter

- (c) Perform PM, PM₁₀, and lead testing for baghouse U for Unit #14 within 180 days of issuance of Part 70 Operating Permit No. 169-25077-00003 or within 180 days publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), published in the May 16, 2008 Federal Register, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests

shall be repeated every five (5) years from the date of the most recent valid compliance demonstration on one (1) emission unit from Group C, as specified in the table below. Testing on any individual emission unit shall not be repeated until each unit in Group C has been tested. PM₁₀ includes filterable and condensable PM.

Group C Emission Units	
<i>Emission Unit</i>	<i>Baghouse</i>
Unit #14: Shot Blasting	U
Unit #11: Shot Blasting	Q
Unit #12: Shot Blasting	S
Unit #29: Shot blast machine	Unit #29 cartridge filter

- (d) All testing shall be conducted in accordance with Section C - Performance Testing.

These testing requirements are required to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), as well as to ensure compliance with the PM, PM₁₀, and lead limits that were set to render 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 not applicable and to render this an area source under Section 112 of the Clean Air Act (CAA). Testing is being required due to the high uncontrolled potential PM, PM₁₀, and lead emissions from this source and insufficient data for emissions from brass foundries.

The compliance monitoring requirements applicable to this source are as follows:

- (1) Units #5, #6, #11-#18, #20, #26, #29, and #30 have applicable Compliance Monitoring requirements as specified below:
- (a) Except for Baghouse UU, for baghouses and cartridge filters equipped with a continuous broken bag (leak) detector at the exhaust stack, the Permittee shall comply with either the Broken Bag Detectors requirements or the Visible Emissions Notations and Parametric Monitoring requirements, as specified below.
 - (b) For baghouses and cartridge filters that are not equipped with a continuous broken bag (leak) detector at the exhaust stack, the Permittee shall comply with the Visible Emissions Notations and Parametric Monitoring requirements, as specified below.
 - (c) All baghouses and cartridge filters shall comply with the Broken or Failed Bag Detection requirements, as specified below.

Broken Bag Detectors

- (a) Except for Baghouse UU, for baghouses and cartridge filters equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction.
- (b) Each broken bag detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997).
- (c) In the event that a breakdown of a broken bag detector occurs, a record shall be made of the times and the reasons of the breakdown and efforts made to correct

the problem.

- (d) Whenever a broken bag detector is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more, and a backup broken bag detector is not online within twenty-four (24) hours of shutdown or malfunction of the primary broken bag detector, the Permittee shall comply with Conditions D.1.10 and D.1.11 until such time that a broken bag detector is online and functioning, pursuant to paragraph (b) of this condition.
- (e) The detector shall be subject to approval by IDEM, OAQ.

Visible Emissions Notations

- (a) Daily visible emission notations of stack exhaust from each baghouse and cartridge filter shall be performed 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.

Parametric Monitoring

The Permittee shall record the pressure drop across each baghouse and cartridge filter at least once per day when each emissions unit is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range listed in the table below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Emissions Unit	Baghouse	Pressure Drop Range (inches of water)
Unit #23: Furnace Charging, Melting and Pouring	UU	3.0 to 8.0
Unit #6: #1 Handline and Harrison Sand Tanks and Shakeout and Conveyor Operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines	H	1.5 to 5.5
Unit #20: Shakeout and Sand Handling for #1,	KK	1.5 to 5.5

Emissions Unit	Baghouse	Pressure Drop Range (inches of water)
#2, #3 Sintos		
Unit #13: Sand Treatment and Brass Reclaim Operations	T	1.5 to 5.5
Unit #5: Iron Room	G	1.5 to 5.5
Unit #11: Shot Blasting	Q	1.5 to 5.5
Unit #12: Shot Blasting	S	1.5 to 5.5
Unit #14: Shot Blasting	U	1.5 to 5.5
Unit #15: Grinding and Cut-Off	V	1.5 to 5.5
Unit #16: Machining, Grinding, and Polishing	W	1.0. to 5.0
Unit #17: Machining, Grinding, and Polishing	X	1.0 to 5.0
Unit #18: Machining, Grinding, and Polishing	Y	1.0 to 5.0
Unit #26: Machining, Grinding, and Polishing	BC	1.0 to 5.0
Unit #29: Shot blast machine	Unit #29 cartridge filter	1.0 to 8.0
Unit #30: Cut-off saw	Unit #30 cartridge filter	1.0 to 8.0

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

Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, by an alarm of the bag leak detector warning system, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces. An alarm of the bag leak detector warning system shall not be considered an indicator of bag failure if the baghouse's pressure drop and visible emissions readings are normal.

These monitoring requirements are necessary to ensure that the baghouses are working properly to demonstrate compliance with 326 IAC 6-3-2 and the PSD minor limits for PM, PM₁₀, and lead.

- (2) Unit #23 has the following applicable Compliance Monitoring requirements:

The Permittee may either install and operate a bag leak detection system for each baghouse module controlling Unit #23 and follow the Bag Leak Detection requirements

below or follow the Visible Emission Notation and Parametric Monitoring requirements specified below. The Permittee shall follow the Broken or Failed Bag Detection requirements below under either scenario.

Bag Leak Detection

If the Permittee chooses to install and operate a bag leak detection system for each baghouse module controlling Unit #23, the Permittee shall do so with the following requirements:

- (a) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997).
- (b) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.
- (c) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (d) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (e) below. The alarm must be located such that it can be heard by the appropriate plant personnel.
- (e) In the initial adjustment of the bag leak detection system, at a minimum, the baseline output must be established by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
 - (1) Following the initial adjustment of the system, the averaging period, alarm set point, or alarm delay time must not be adjusted without IDEM approval, except as provided by subparagraph (2) below.
 - (2) Once per quarter, the Permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to procedures identified in the site-specific monitoring plan.
- (f) The bag leak detection sensor must be installed downstream of the fabric filter.
- (g) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

Visible Emissions Notations

If the Permittee chooses to not install bag leak detection systems for the Unit #23 baghouse modules or as an alternative to complying with the Bag Leak Detection Requirements above, the Permittee shall comply with the following:

- (a) Daily visible emission notations of stack exhaust from Baghouse UU shall be performed 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.

Parametric Monitoring

If the Permittee chooses to not install bag leak detection systems for the Unit #23 baghouse modules or as an alternative to complying with the Bag Leak Detection Requirements above, the Permittee shall comply with the following:

For baghouses and cartridge filters that are not equipped with a continuous broken bag (leak) detector or as an alternative to complying with Condition D.1.13, the Permittee shall record the pressure drop across Baghouse UU at least once per day when each emissions unit is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, by an alarm of the bag leak detector

warning system, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows. An alarm of the bag leak detector warning system shall not be considered an indicator of bag failure if the baghouse's pressure drop and visible emissions readings are normal.

These compliance monitoring requirements are necessary to ensure that the baghouse modules controlling Unit #23 are working properly to demonstrate compliance with 326 IAC 6-3-2 and the PSD minor limits for PM, PM₁₀, and lead.

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 July 31, 2007. Additional information was received on several dates.

Conclusion

The operation of this stationary captive brass foundry shall be subject to the conditions of the attached Part 70 Operating Permit No. T169-25077-00003.

Appendix A: Emissions Calculations
Summary of Criteria Pollutants Potential to Emit

Process/Facility	Unlimited PTE (tons/year)					
	PM	PM10	SO2	NOx	VOC	CO
Furnace Charging, Melting, and Pouring (Unit #23)	204.60	117.73	0.72	0.36	5.03	215.36
#1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	1050.81	189.21	--	--	21.54	
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	766.99	146.64	--	--	21.54	
Sand Treatment and Brass Reclaim Operations (Unit #13)	236.52	35.48	--	--	--	--
Coreroom Ventilation (Unit #19)	39.50	32.39	0.35	19.03	3.17	0.91
Iron Room (Unit #5)	58.08	5.81	--	--	--	--
Shotblasting (Unit #11)	203.28	20.33	--	--	--	--
Shotblasting (Unit #12)	102.01	10.20	--	--	--	--
Shotblasting (Unit #14)	610.20	61.02	--	--	--	--
Shot Blast Unit Approved for 2009 (Unit #29)	148.92	14.89	--	--	--	--
Grinding & Cut-Off (Unit #15)	610.20	61.02	--	--	--	--
Cut-Off Saw Approved for 2009 (Unit #30)	148.92	14.89	--	--	--	--
Machining, Grinding, & Polishing (Unit #16)	58.08	5.81	--	--	--	--
Machining, Grinding, & Polishing (Unit #17)	158.65	15.87	--	--	--	--
Machining, Grinding, & Polishing (Unit #18)	67.01	6.70	--	--	--	--
Machining, Grinding, & Polishing (Unit #26)	158.65	15.87	--	--	--	--
100 KW Generator	0.050	0.0004	0.003	20.52	0.59	2.80
Two 423 HP Generators	8.15	8.15	7.60	114.87	9.15	24.75
Binks Teflon Spray Coating Booth (Unit #21)	3.99	3.99	--	--	11.95	--
Nut Coating Operation (Unit #27)	--	--	--	--	2.58	--
Miscellaneous Painting and Gluing Activities	2.64	2.64	--	--	10.30	--
Insignificant Activities	11.98	11.60	14.51	18.19	10.81	9.92
Total	4649.2	780.23	23.18	173.0	96.65	253.75

PTE After Control (tons/year)							
PM	PM10	SO2	NOx	VOC	CO	Control	
22.51	12.95	0.72	0.36	5.03	215.36	Baghouse (89%)	
10.51	1.89	--	--	21.54		Baghouse (99%)	
7.67	1.47	--	--	21.54		Baghouse (99%)	
2.37	0.35	--	--	--	--	Baghouse (99%)	
39.50	32.39	0.35	19.03	3.17	0.91		
0.58	0.06	--	--	--	--	Baghouse (99%)	
2.03	0.20	--	--	--	--	Baghouse (99%)	
1.02	0.10	--	--	--	--	Baghouse (99%)	
6.10	0.61	--	--	--	--	Baghouse (99%)	
1.49	0.15	--	--	--	--	Baghouse (99%)	
6.10	0.61	--	--	--	--	Baghouse (99%)	
1.49	0.15	--	--	--	--	Baghouse (99%)	
0.58	0.06	--	--	--	--	Baghouse (99%)	
1.59	0.16	--	--	--	--	Baghouse (99%)	
0.67	0.07	--	--	--	--	Baghouse (99%)	
1.59	0.16	--	--	--	--	Baghouse (99%)	
0.050	0.0004	0.003	20.52	0.59	2.80		
8.15	8.15	7.60	114.87	9.15	24.75		
0.40	0.40	--	--	11.95	--	Overspray Air Filters (90%)	
--	--	--	--	2.58	--		
0.01	0.01	--	--	10.30	--	Overspray Air Filters (99.5%)	
10.57	11.18	14.51	18.19	10.81	9.92		
125.0	71.12	23.18	173.0	96.65	253.75		

PTE After Limits (tons/year)							
PM	PM10	SO2	NOx	VOC	CO	Limit	
25.00	25.00	0.72	0.36	5.03	215.36	326 IAC 2-2: PM, PM10	
15.00	15.00	--	--	21.54		326 IAC 2-2: PM, PM10	
15.00	15.00	--	--	21.54		326 IAC 2-2: PM, PM10	
10.00	10.00	--	--	--	--	326 IAC 2-2: PM, PM10	
39.50	32.39	0.35	19.03	3.17	0.91		
2.00	2.00	--	--	--	--	326 IAC 2-2: PM, PM10	
5.00	5.00	--	--	--	--	326 IAC 2-2: PM, PM10	
2.00	2.00	--	--	--	--	326 IAC 2-2: PM, PM10	
15.00	15.00	--	--	--	--	326 IAC 2-2: PM, PM10	
5.00	5.00	--	--	--	--	326 IAC 2-2: PM, PM10	
15.00	15.00	--	--	--	--	326 IAC 2-2: PM, PM10	
5.00	5.00	--	--	--	--	326 IAC 2-2: PM, PM10	
3.00	3.00	--	--	--	--	326 IAC 2-2: PM, PM10	
10.00	10.00	--	--	--	--	326 IAC 2-2: PM, PM10	
3.00	3.00	--	--	--	--	326 IAC 2-2: PM, PM10	
10.00	10.00	--	--	--	--	326 IAC 2-2: PM, PM10	
0.050	0.00039	0.0030	20.52	0.59	2.80		
0.47	0.47	0.43	6.56	0.52	1.41		
0.40	0.40	--	--	11.95	--	326 IAC 6-3-2: PM	
--	--	--	--	2.58	--		
2.64	2.64	--	--	10.30	--		
11.98	11.60	14.51	18.19	10.81	9.92		
195.0	187.5	16.0	64.7	88.0	230.4		

Appendix A: Emissions Calculations

Summary of HAPs Potential to Emit

Unlimited PTE (tons/year)																													
Process/Facility	Acetaldehyde	Acrolein	Antimony	Arsenic	Benzene	Beryllium	Biphenyl	1,3 Butadiene	Cadmium	Chromium	Cobalt	Cumene	Dichlorobenzene	Dimethyl-formamide	Ethylene Glycol	Formaldehyde	Hexane	Lead	Manganese	Methanol	Mercury	Naphthalene	Nickel	Phenol	Phosphorous	Selenium	Toluene	Xylene	Total
Furnace Charging, Melting, and Pouring (Unit #23)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.11	0.81	--	--	--	--	--	--	--	--	--	16.11
#1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.27	--	--	--	--	--	--	--	--	--	3.27	
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.39	--	--	--	--	--	--	--	--	--	2.39	
Sand Treatment and Brass Reclaim Operations (Unit #13)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.47	--	--	--	--	--	--	--	--	--	0.47	
Corerom Ventilation (Unit #19)	--	--	--	--	2.27E-05	--	--	--	1.19E-05	1.51E-05	--	--	1.30E-05	--	3.80	0.10	0.019	5.40E-06	4.10E-06	0.0793	--	--	--	2.27E-05	0.0051	--	--	3.67E-05	4.01
Iron Room (Unit #5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	0.25	
Shotblasting (Unit #11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.10	--	--	--	--	--	--	--	--	--	6.10	
Shotblasting (Unit #12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.06	--	--	--	--	--	--	--	--	--	3.06	
Shotblasting (Unit #14)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	0.92	
Shot Blast Unit Approved for 2009 (Unit #29)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	0.37	
Grinding & Cut-Off (Unit #15)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29.90	--	--	--	--	--	--	--	--	--	29.90	
Cut-Off Saw Approved for 2009 (Unit #30)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	0.37	
Machining, Grinding, & Polishing (Unit #16)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.87	--	--	--	--	--	--	--	--	--	2.87	
Machining, Grinding, & Polishing (Unit #17)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.85	--	--	--	--	--	--	--	--	--	7.85	
Machining, Grinding, & Polishing (Unit #18)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.32	--	--	--	--	--	--	--	--	--	3.32	
Machining, Grinding, & Polishing (Unit #26)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.85	--	--	--	--	--	--	--	--	--	7.85	
100 KW Generator	0.04	0.03	--	--	0.0022	--	0.0011	--	--	--	--	--	--	--	--	0.27	0.0056	--	--	--	--	--	--	--	--	0.0021	0.0009	0.35	
Two 423 hp Generators	0.02	0.002	--	--	0.02	--	0.001019	--	--	--	--	--	--	--	--	0.03	--	--	--	--	0.002209	--	--	--	--	0.01	0.01	0.10	
Binks Teflon Spray Coating Booth (Unit #21)	--	--	--	--	--	--	--	--	--	--	--	0.032	--	1.60	4.55	--	--	--	--	--	--	--	--	--	--	--	0.0261	6.21	
Nut Coating Operation (Unit #27)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	
Miscellaneous Painting and Gluing Activities	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4	2.40	
Insignificant Activities	--	--	0.000322	8.09E-05	--	1.705E-06	--	--	2.44E-05	6.70E-05	3.69E-04	--	--	--	--	--	--	0.01	1.84E-04	--	6.93E-06	--	5.18E-03	--	5.19E-04	4.19E-05	--	0.22	
Total	0.062	0.028	0.0003	0.0001	0.027	1.70E-06	0.001	0.001	3.63E-05	0.0001	3.69E-04	0.032	1.30E-05	1.602	8.357	0.399	0.025	82.129	0.808	0.079	6.93E-06	0.0022	0.005	0.005	0.001	4.19E-05	2.413	0.034	98.4

PTE After Controls (tons/year)																													
Process/Facility	Acetaldehyde	Acrolein	Antimony	Arsenic	Benzene	Beryllium	Biphenyl	1,3 Butadiene	Cadmium	Chromium	Cobalt	Cumene	Dichlorobenzene	Dimethyl-formamide	Ethylene Glycol	Formaldehyde	Hexane	Lead	Manganese	Methanol	Mercury	Naphthalene	Nickel	Phenol	Phosphorous	Selenium	Toluene	Xylene	Total
Furnace Charging, Melting, and Pouring (Unit #23)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.44	0.089	--	--	--	--	--	--	--	--	3.72	
#1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--	--	--	--	--	--	--	--	0.07	
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.05	--	--	--	--	--	--	--	--	--	0.05	
Sand Treatment and Brass Reclaim Operations (Unit #13)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.009	--	--	--	--	--	--	--	--	--	0.01	
Corerom Ventilation (Unit #19)	--	--	--	--	2.27E-05	--	--	--	1.19E-05	1.51E-05	--	--	1.30E-05	--	0.102	1.94E-02	5.40E-06	4.10E-06	7.93E-02	--	--	--	--	2.27E-05	0.005	--	--	3.67E-05	4.01
Iron Room (Unit #5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	0.06	
Shotblasting (Unit #11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	0.12	
Shotblasting (Unit #12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	0.06	
Shotblasting (Unit #14)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	0.02	
Shot Blast Unit Approved for 2009 (Unit #29)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0074	--	--	--	--	--	--	--	--	--	0.007	
Grinding & Cut-Off (Unit #15)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	0.60	
Cut-Off Saw Approved for 2009 (Unit #30)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0074	--	--	--	--	--	--	--	--	--	0.007	
Machining, Grinding, & Polishing (Unit #16)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	0.06	
Machining, Grinding, & Polishing (Unit #17)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	0.16	
Machining, Grinding, & Polishing (Unit #18)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--	--	--	--	--	--	--	--	0.07	
Machining, Grinding, & Polishing (Unit #26)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	0.16	
100 KW Generator	0.04	0.03	--	--	0.0022	--	0.0011	--	--	--	--	--	--	--	--	0.27	0.0056	--	--	--	--	--	--	--	--	0.0021	0.0009	0.35	
Two 423 hp Generators	0.02	0.00	--	--	0.02	--	0.001019	--	--	--	--	--	--	--	--	0.03	--	--	--	--	2.21E-03	--	--	--	--	0.01	0.01	0.10	
Binks Teflon Spray Coating Booth (Unit #21)	--	--	--	--	--	--	--	--	--	--	--	0.032	--	1.60	4.55	--	--	--	--	--	--	--	--	--	--	--	--	0.0261	6.21
Nut Coating Operation (Unit #27)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	
Miscellaneous Painting and Gluing Activities	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4	2.4	
Insignificant Activities	--	--	0.000322	8.09E-05	--	1.705E-06	--	--	2.44E-05	6.70E-05	3.69E-04	--	--	--	--	--	--	0.0004	1.84E-04	--	6.93E-06	--	5.18E-03	--	5.19E-04	4.18816E-05	--	0.21	
Total	0.062	0.028	3.22E-04	8.09E-05	0.027	1.70E-06	0.001	0.001	3.63E-05	8.21E-05	3.69E-04	0.032	1.30E-05	1.602	8.357	0.399	0.025	2.823	0.089	0.079	6.93E-06	--	5.18E-03	0.005	0.001	4.18816E-05	2.413	0.034	18.4

PTE After Limits (tons/year)																														
Process/Facility	Acetaldehyde	Acrolein	Antimony	Arsenic	Benzene	Beryllium	Biphenyl	1,3 Butadiene	Cadmium	Chromium	Cobalt	Cumene	Dichlorobenzene	Dimethyl-formamide	Ethylene Glycol	Formaldehyde	Hexane	Lead	Manganese	Methanol	Mercury	Naphthalene	Nickel	Phenol	Phosphorous	Selenium	Toluene	Xylene	Total	Limit
Furnace Charging, Melting, and Pouring (Unit #23)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.40	0.80761725	--	--	--	--	--	--	--	--	5.40	326 IAC 2-2: Lead	
#1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	0.15	326 IAC 2-2: Lead	
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	0.15	326 IAC 2-2: Lead	
Sand Treatment and Brass Reclaim Operations (Unit #13)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	--	--	--	--	0.04	326 IAC 2-2: Lead	
Corerom Ventilation (Unit #19)	--	--	--	--	2.266E-05	--	--	--	1.19E-05	1.51E-05	--	--	1.30E-05	--	3.80	0.10	0.019426	5.40E-06	4.10E-06	7.93E-02	--	--	--	2.27E-05	0.0051	--	--	3.67E-05	4.01	
Iron Room (Unit #5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	0.02	326 IAC 2-2: Lead	
Shotblasting (Unit #11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	0.52	326 IAC 2-2: Lead		
Shotblasting (Unit #12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	0.26	326 IAC 2-2: Lead		
Shotblasting (Unit #14)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	--	--	--	--	--	--	--	--	0.08	326 IAC 2-2: Lead		
Shot Blast Unit Approved for 2009 (Unit #29)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1	--	--	--	--	--	--	--	--	0.10	326 IAC 2-2: Lead		
Grinding & Cut-Off (Unit #																														

Appendix A: Emissions Calculations
Charging, Melting, Pouring/Casting Processes

Process: Charging (8 Furnaces)	Rate (tons produced/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Unit #23: 6 Channel Induction Furnaces (1.25 tons/hr each), 1 Box Induction Furnace (0.695 tons/hr), 1 Crucible Induction Furnace (0.53 tons/hr) - Cannot run box induction furnace and crucible induction furnace at same time.	8.195	PM	0.60	21.54	BH UU	89.00%	2.37
		PM-10	0.36	12.92	BH UU	89.00%	1.42
	Source Analysis	Lead	0.038	1.38	BH UU	89.00%	0.15
	<i>Source of Emission Factors: FIRE 6.01, SCC# 3-04-003-15 AP-42 Ch. 12.10, 1995 Unless otherwise noted</i>						

Process: Melting (8 Furnaces)	Rate (tons produced/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Unit #23: 6 Channel Induction Furnaces (1.25 tons/hr each), 1 Box Induction Furnace (0.695 tons/hr), 1 Crucible Induction Furnace (0.53 tons/hr) - Cannot run box induction furnace and crucible induction furnace at same time.	8.195	PM	0.90	32.30	BH UU	89.00%	3.55
		PM-10	0.86	30.87	BH UU	89.00%	3.40
		Manganese	0.02	0.81	BH UU	89.00%	0.09
	Source Analysis	Lead	0.058	2.07	BH UU	89.00%	0.228
<i>Source of Emission Factors: FIRE 6.01, SCC# 3-04-003-03 AP-42 Ch. 12.10, 1995 Unless otherwise noted</i>							

Process: Pouring/Casting	Rate (each) (tons poured/hr)	Pollutant	Ef (lb/ton poured)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Unit #23: Pouring and Casting for 7 lines: No. 1 Handline, Sinto #4, Harrison #1, Harrison #2, Sinto #1, Sinto #2, Sinto #3	8.195	PM	4.20	150.76	BH UU	89.00%	16.58
		PM-10	2.06	73.94	BH UU	89.00%	8.13
		SO ₂	0.02	0.72			0.72
		NO _x	0.01	0.36			0.36
Source of Emission Factors: FIRE, SCC# 3-04-003-20 Unless otherwise noted		CO*	6.00	215.36			215.36
		VOC	0.14	5.03			5.03
	Source Analysis	Lead	0.269	9.66	BH UU	89.00%	1.063
**	Total Organic HAPs*	0.061	2.19			2.190	

Methodology:

Ef = Emission factor

Ebc = Potential Emissions before controls = Rate (ton/hr) * Ef(lb/ton) * (8760 hrs/yr) * (1 ton/2000 lb)

Eac = Potential Emissions after controls = (1-efficiency/100) * Ebc

Source Analysis: Lead content is 6.41% of PM emissions

*CO and Total Organic HAPs Emission Factors includes pouring, cooling, and shakeout processes.

**Source of Emission Factor: Schifo, James, "Organic Hazardous Air Pollutant Emission Factors for Iron Foundries", American Foundry Society, Rev. June 17, 2007. (Emission Factor for phenolic hot box cores)

Appendix A: Emissions Calculations
Molding Line Sand Handling and Shakeout

Process: Sand Handling	Rate (tons sand/hr)	Pollutant	Ef (lb/ton sand)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Sand Handling from Unit #6	63	PM	3.6	993.4	BH H	99.00%	9.9
		PM-10	0.54	149.0	BH H	99.00%	1.5
Source Emission Factors: FIRE, SCC# 3-04-003-50 Unless otherwise noted	Source Analysis	Lead	0.0112104	3.1	BH H	98.00%	0.06

Process: Sand Handling	Rate (tons sand/hr)	Pollutant	Ef (lb/ton sand)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Sand Handling from Unit #20	45	PM	3.6	709.6	BH KK	99.00%	7.1
		PM-10	0.54	106.4	BH KK	99.00%	1.1
Source Emission Factors: FIRE, SCC# 3-04-003-50 Unless otherwise noted	Source Analysis	Lead	0.0112104	2.2	BH KK	98.00%	0.04

Process: Sand Handling	Rate (tons sand/hr)	Pollutant	Ef (lb/ton sand)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Sand Handling from Unit #13	15	PM	3.6	236.5	BH T	99.00%	2.4
		PM-10	0.54	35.5	BH T	99.00%	0.4
Source Emission Factors: FIRE, SCC# 3-04-003-50 Unless otherwise noted	Source Analysis	Lead	0.0072	0.5	BH T	98.00%	0.009

Process: Shakeout	Rate (tons poured/hr)	Pollutant	Ef (lb/ton poured)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shakeout from Unit #6	4.0975	PM	3.2	57.4	BH H	99.00%	0.6
		PM-10	2.24	40.2	BH H	99.00%	0.4
Source Emission Factors: FIRE, SCC# 3-04-003-31 Unless otherwise noted		VOC	1.2	21.5			21.5
		CO*	--	--			--
	Source Analysis	Lead	0.0099648	0.2	BH H	98.00%	0.004
		Total Organic HAPs*	--	--			--

Process: Shakeout	Rate (tons poured/hr)	Pollutant	Ef (lb/ton poured)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shakeout from Unit #20	4.0975	PM	3.2	57.4	BH KK	99.00%	0.6
		PM-10	2.24	40.2	BH KK	99.00%	0.4
Source Emission Factors: FIRE, SCC# 3-04-003-31 Unless otherwise noted		VOC	1.2	21.5			21.5
		CO*	--	--			--
	Source Analysis	Lead	0.0099648	0.2	BH KK	98.00%	0.004
		Total Organic HAPs*	--	--			--

Methodology:

Ef = Emission factor

Ebc = Potential Emissions before controls = Rate (ton/hr) * Ef (lb/ton) * (8760 hrs/yr) * (1 ton/2000 lb)

Eac = Potential Emissions after controls = (1-efficiency/100) * Ebc

Source Analysis: Lead content is 0.3114% of PM emissions for Units #6 and #20 and 0.2% for Unit #13

*CO and Total Organic HAPs Emission Factors include pouring, cooling, and shakeout processes and were used in the pouring/cooling calculations

Core Making Units

The 13 core making units can using "Warm Box System" to make cured silica sand cores with resin addition at a rate of 1.4 wt.%, catalyst addition at a rate of 20% of the resin addition, and a releasing agent added at a rate of 0.00000875 lb/lb of silica

Unit		Pollutant	EF	EF Units	Source of EF	Ebc (ton/yr)
13 Units: Warm Box Sand (1.4% resin and 0.28% catalyst) (Unit #19)		PM	1.1	lb/ton metal charged	Fire 6.01, SCC# 3-04-003-19	39.48
Capacity (ton sand/hr)	2.068	PM ₁₀	0.9	lb/ton metal charged	Fire 6.01, SCC# 3-04-003-53	32.30
Capacity (ton metal charged/hr)	8.195	NOx	0.5	lb/ton metal charged	Fire 6.01, SCC# 3-04-003-71	17.947
		SO ₂	0.038	lb/ton sand handled	Fire 6.01, SCC# 3-04-003-51	0.344
		VOC	0.343525	lb/ton sand handled	See below ¹	3.11
		Formaldehyde	0.0112	lb/ton sand handled	See below ²	0.101
		Ethylene Glycol	0.42	lb/ton sand handled	See below ²	3.804
		Phenol	0.00056	lb/ton sand handled	See below ²	0.005
		Methanol	0.00875	lb/ton sand handled	See below ²	0.079

Methodology

EF = Emission Factor

Ebc (ton/yr) = Potential Emissions before controls = Capacity (tons/hr) * EF (lbs/ton) * (8760 hrs/yr) * (1 ton/2000 lb)

¹VOC Emission Factor Derivation:

- Manufacturer test results indicate the VOC release rate of the resin (Envirosert 08-76B), catalyst (6502E), and releasing agent are 0.8%, 1.9%, and 75% by weight, respectively.
VOC Emission Factor (lb VOC/ton sand) = [(Wt.% Resin (lb resin/lb sand) * release rate VOC in Resin (lb VOC/lb resin)) + (Wt.% Catalyst (lb catalyst/lb sand) * release rate VOC in Catalyst (lb VOC/lb catalyst)) + (Wt.% Releasing Agent (lb releasing agent/lb sand) * release rate VOC in Releasing Agent (lb VOC/lb releasing agent))] * (2000 lb/ton)

²Formaldehyde and Phenol Emission Factor Derivation:

- Manufacturer test results indicate the following HAPs are released from the coremaking chemicals:
 - Formaldehyde released from the resin (Envirosert 08-76B) at a rate of 0.04%
 - Ethylene Glycol released from the catalyst (6502E) at a rate of 7.5%
 - Phenol released from the catalyst (6502E) at a rate of 0.01%
 - Methanol released from the releasing agent at a rate of 50%

HAP Emission Factor (lb HAP/ton sand) = [Wt.% coremaking chemical additive (lb additive/lb sand) * release rate HAP in additive (lb HAP/lb additive)] * (2000 lb/ton)

Emissions from Natural Gas Combustion Associated with Core Making Units:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.464	21.6

Criteria Pollutant Emissions

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.02	0.1	0.01	**see below	0.1	0.9

*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

HAPs Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichloro-benzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.266E-05	1.295E-05	8.094E-04	1.943E-02	3.669E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.396E-06	1.187E-05	1.511E-05	4.101E-06	2.266E-05

Total HAPs (tons/yr) = 2.04E-02

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

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) * (8,760 hrs/yr) * (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 3/98)

Emissions (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

Appendix A: Emissions Calculations
Machining, Grinding, and Finishing

Process: Iron Room Operations	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Grinding and Finishing for Unit #5 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	0.78	PM	17.00	58.08	BH G	99.00%	0.58
	Source Analysis	PM ₁₀	1.70	5.81	BH G	99.00%	0.058
		Lead	0.07	0.25	BH G	98.00%	0.005

Source Analysis: The lead content is 0.43% of PM by weight

Process: Grinding & Cut-off	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Grinding and Cut-Off Operations for Unit #15 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	8.195	PM	17.00	610.20	BH V	99.00%	6.10
	Source Analysis	PM ₁₀	1.70	61.02	BH V	99.00%	0.610
		Lead	0.83	29.90	BH V	98.00%	0.598

Source Analysis: The brass content of the dust is 98% by weight and the lead content of the brass is 5% by weight.

Process: Machining, Grinding, Polishing	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Machining, Grinding, Polishing for Unit #16 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	0.780	PM	17.00	58.08	BH W	99.00%	0.58
	Source Analysis	PM ₁₀	1.70	5.81	BH W	99.00%	0.058
		Lead	0.84	2.87	BH W	98.00%	0.057

Source Analysis: The brass content of the dust is 99% by weight and the lead content of the brass is 5% by weight.

Process: Machining, Grinding, Polishing	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Machining, Grinding, Polishing for Unit #17 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	2.131	PM	17.00	158.65	BH X	99.00%	1.59
	Source Analysis	PM ₁₀	1.70	15.87	BH X	99.00%	0.159
		Lead	0.84	7.85	BH X	98.00%	0.157

Source Analysis: The brass content of the dust is 99% by weight and the lead content of the brass is 5% by weight.

Process: Machining, Grinding, Polishing	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Machining, Grinding, Polishing for Unit #18 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	0.900	PM	17.00	67.01	BH Y	99.00%	0.67
	Source Analysis	PM ₁₀	1.70	6.70	BH Y	99.00%	0.067
		Lead	0.84	3.32	BH Y	98.00%	0.066

Source Analysis: The brass content of the dust is 99% by weight and the lead content of the brass is 5% by weight.

Process: Machining, Grinding, Polishing	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Machining, Grinding, Polishing for Unit #26 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	2.131	PM	17.00	158.65	BH BC	99.00%	1.59
	Source Analysis	PM ₁₀	1.70	15.87	BH BC	99.00%	0.159
		Lead	0.84	7.85	BH BC	98.00%	0.157

Source Analysis: The brass content of the dust is 99% by weight and the lead content of the brass is 5% by weight.

Process: Grinding & Cut-off	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Cut-Off Saw (Unit #30) Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	2.000	PM	17.00	148.92	BH	99.00%	1.49
	Source Data	PM ₁₀	1.70	14.89	BH	99.00%	0.149
		Lead	0.04	0.37	BH	98.00%	0.007

Source Data: No-lead brass contains < 0.25% lead.

Methodology:

Ef = Emission factor

Ebc = Potential Emissions before controls = Rate (ton/hr) * Ef (lb/ton) * (8760 hrs/yr) * (1 ton/2000 lb)

Potential Emissions after controls = (1-efficiency/100) * Ebc

Shot Blasting

Process: Shot Blasting	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blasting for Unit #11 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	2.730	PM	17.00	203.28	BH Q	99.00%	2.03
	Source Analysis	PM ₁₀	1.70	20.33	BH Q	99.00%	0.203
		Lead	0.51	6.10	BH Q	98.00%	0.122

Source Analysis: The brass content of the dust is 60% by weight and the lead content of the brass is 5% by weight.

Process: Shot Blasting	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blasting for Unit #12 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	1.370	PM	17.00	102.01	BH S	99.00%	1.02
	Source Analysis	PM ₁₀	1.70	10.20	BH S	99.00%	0.102
		Lead	0.51	3.06	BH S	98.00%	0.061

Source Analysis: The brass content of the dust is 60% by weight and the lead content of the brass is 5% by weight.

Process: Shot Blasting	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blasting for Unit # 14 Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	8.195	PM	17.00	610.20	BH U	99.00%	6.10
	Source Analysis	PM ₁₀	1.70	61.02	BH U	99.00%	0.610
		Lead	0.03	0.92	BH U	98.00%	0.018

Source Analysis: The brass content of the dust is 3% by weight and the lead content of the brass is 5% by weight.

Process: Shot Blasting	Rate (tons iron/hr)	Pollutant	Ef (lb/ton charged)	Ebc (ton/yr)	Type of control	Control Efficiency (%)	Eac (ton/yr)
Shot Blast Machine (Unit #29) Source Emission Factors: Fire 6.01, SCC# 3-04-003-40 AP-42 Ch. 12.10, Fifth Edition, 1995 Unless otherwise noted	2.000	PM	17.00	148.92	BH	99.00%	1.49
	Source Data	PM ₁₀	1.70	14.89	BH	99.00%	0.149
		Lead	0.04	0.37	BH	98.00%	0.007

Source Data: No-lead brass contains < 0.25% lead.

Methodology:

Ef = Emission factor

Ebc = Potential Emissions before controls = Rate (ton/hr) * Ef (lb/ton) * (8760 hrs/yr) * (1 ton/2000 lb)

Eac = Potential Emissions after controls = (1-efficiency/100) * Ebc

Appendix A: Emissions Calculations
100 KW Generator - Natural Gas Combustion Only
Natural Gas-Fired Generator (100KW) MMBtu/hr <100

***Emissions for One (1) Natural Gas-Fired Generator (100KW) calculated based on heat input capacity (MMBtu/hr) with an unlimited annual usage rate of 8760 hrs/yr.**

Potential Throughput CF/hr	Heat Input Capacity MMBtu/hr
1126.0	1.1485

Criteria Pollutant Emissions

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	9.91E-03	7.71E-05	5.88E-04	4.08	0.12	0.56
	4.99E-02	3.88E-04	2.96E-03	20.52	0.59	2.80

*PM10 emission factors is filterable PM only. PM emission factor is condensable Inorganic PM plus condensable Organic PM, combined.

HAPs Emissions

Emission Factor in lb/MMBtu	HAPs - Organics							
	Acetaldehyde	Acrolein	Benzene	Biphenyl	Formaldehyde	Hexane	Toluene	Xylene
Potential Emission in tons/yr	8.36E-03	5.14E-03	4.40E-04	2.12E-04	5.28E-02	1.11E-03	4.08E-04	1.84E-04
	0.04	0.03	2.21E-03	1.07E-03	0.27	5.58E-03	2.05E-03	9.26E-04

Total HAPs 0.345 tpy

The eight highest organic HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 3.2.
Emission Factors are from AP 42, Chapter 3.2, (SUPPLEMENT D 3/98), Natural Gas-Fired Reciprocating Engines, Table 3.2-2 Uncontrolled Emission Factors for 4-Stroke Lean-Burn Engines.

Methodology

All emission factors are based on normal firing.
1 MMCF = 1020 MMBtu for Natural Gas

Heat Input Capacity (MMBtu/hr) = Potential Throughput (cf/hr) x (1020 MMBtu/MMCF) x (1 MMCF/1,000,000 cf)
Emission (tons/yr) = Heat Input Capacity (MMBtu/hr) * Emission Factor (lb/MMBtu) * (8760 hrs/yr) * (1 ton/2000 lb)

Appendix A: Emissions Calculations
Two 423 hp Diesel Generators

Two 423 maximum horsepower diesel fuel-fired generators

Maximum Horsepower	Estimated Heat Input Capacity
hp	MMBtu/hr
846	5.95

Criteria Pollutant Emissions

	Pollutant				
	PM/PM10	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.00205	0.031	0.00247	0.00668
Potential Emission in tons/yr	8.15	7.60	114.87	9.15	24.75

Emission Factors are from AP 42, Table 3.3-1 (SCC# 2-02-001-02, SCC# 2-03-001-01), Supplement B 10/96

HAPs Emissions

	HAPs			
	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene
Emission Factor in lb/mmBtu	7.7E-04	9.3E-05	9.3E-04	3.9E-05
Potential Emission in tons/yr	2.00E-02	2.41E-03	2.43E-02	1.02E-03

	HAPs (continued)			
	Formaldehyde	Naphthalene	Toluene	Xylenes
Emission Factor in lb/mmBtu	1.2E-03	8.5E-05	4.1E-04	2.9E-04
Potential Emission in tons/yr	3.07E-02	2.21E-03	1.07E-02	7.42E-03

Total HAPs (tons/yr) = 9.87E-02

Emission Factors are from AP-42, Table 3.3-2 (SCC#s 2-02-001-02, 2-03-001-01), Supplement B 10/96.

Methodology

Estimated Heat Input Capacity (MMBtu/hr) = Maximum Horsepower (hp) * (0.00703 MMBtu/hr / hp)

The MMBtu/hr to hp conversion factor is based on comparison of lb/hp-hr and lb/MMBtu emission factors from AP-42 Table 3.3-2.

For Criteria Pollutant Emissions:

Emission (tons/yr) = Maximum Horsepower (hp) * Emission Factor (lb/hp-hr) * (1 ton/2,000 lb) * (8760 hr/yr)

For HAP Emissions:

Potential Emissions (tons/year) = Throughput (MMBtu/hr) * Emission Factor (lb/MMBtu) * (8760 hr/yr) * (1 ton/2000 lb)

Appendix A: Emissions Calculations
Two 423 hp Diesel Generators

***Emissions for Two (2) Natural Gas-Fired Generators (423hp) calculated based on heat input capacity (MMBtu/hr) with an limited annual usage rate of 500 hrs/yr each.**

Maximum Horsepower	Estimated Heat Input Capacity
hp	MMBtu/hr
846	5.95

Criteria Pollutant Emissions

	Pollutant				
	PM/PM10	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.00205	0.031	0.00247	0.00668
Potential Emission in tons/yr	0.47	0.43	6.56	0.52	1.41

Emission Factors are from AP 42, Table 3.3-1 (SCC# 2-02-001-02, SCC# 2-03-001-01), Supplement B 10/96

HAPs Emissions

	HAPs			
	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene
Emission Factor in lb/mmBtu	7.7E-04	9.3E-05	9.3E-04	3.9E-05
Potential Emission in tons/yr	1.14E-03	1.38E-04	1.39E-03	5.81E-05

	HAPs (continued)			
	Formaldehyde	Naphthalene	Toluene	Xylenes
Emission Factor in lb/mmBtu	1.2E-03	8.5E-05	4.1E-04	2.9E-04
Potential Emission in tons/yr	1.75E-03	1.26E-04	6.08E-04	4.24E-04

Total HAPs (tons/yr) = 5.64E-03

Emission Factors are from AP-42, Table 3.3-2 (SCC#s 2-02-001-02, 2-03-001-01), Supplement B 10/96.

Methodology

Estimated Heat Input Capacity (MMBtu/hr) = Maximum Horsepower (hp) * (0.00703 MMBtu/hr / hp)

The MMBtu/hr to hp conversion factor is based on comparison of lb/hp-hr and lb/MMBtu emission factors from AP-42 Table 3.3-2.

For Criteria Pollutant Emissions:

Emission (tons/yr) = Maximum Horsepower (hp) * Emission Factor (lb/hp-hr) * (1 ton/2,000 lb) * (8760 hr/yr)

For HAP Emissions:

Potential Emissions (tons/year) = Throughput (MMBtu/hr) * Emission Factor (lb/MMBtu) * (8760 hr/yr) * (1 ton/2000 lb)

Surface Coating Operations

VOC and Particulate Emissions

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/yr)	Potential Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Binks Teflon Coating Spray Booth (Unit #21)																
Xylan 8460	9.2	71.50%	24.6%	46.9%	27.1%	18.44%	0.00520	121.700	5.92	4.31	2.73	65.48	11.95	3.99	23.38	45%
Controlled Emissions:													11.95	0.40		
Nut Coating Operation (Unit #27)																
Emralon 8301-01	8.7	83.30%	62.0%	21.3%	62.0%	16.70%	0.00016	1960.000	4.88	1.85	0.59	14.12	2.58	0.00	11.10	100%
Miscellaneous Painting and Gluing Activities																
											2.35	56.44	10.30	2.64		
Controlled Emissions:													10.30	0.01		

Particulate from the Binks Teflon Coating Spray Booth (Unit #21) is controlled by overspray air filters with 90% efficiency.

Particulate from the Miscellaneous Painting and Gluing Activities is controlled by overspray air filters with 99.5% efficiency.

PTE of Miscellaneous Painting and Gluing Activities was Provided by Permittee.

Uncontrolled Emissions: 5.67 136.04 24.83 6.63
Controlled Emissions: 5.67 136.04 24.83 0.41

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

HAPs Emissions

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Cumene	Weight % Dimethylformamide	Weight % Ethylene Glycol	Weight % Xylene	Cumene Emissions (ton/yr)	Dimethylformamide Emissions (ton/yr)	Ethylene Glycol Emissions (ton/yr)	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)
Teflon Coating (Unit #21)	7.95	1.00000	2.500	0.04%	1.84%	5.23%	0.03%	0.03	1.60	4.55	0.03	6.21
Brass Nut Coating (Unit #27)	9.38	1.00000	2.500	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Miscellaneous Painting and Gluing Activities												2.40
"Worst Case" Individual HAP								0.03	1.60	4.55	0.03	2.40
"Worst Case" Total HAPs												8.61

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * (8760 hrs/yr) * (1 ton/2000 lbs)

PTE of Miscellaneous Painting and Gluing Activities was Provided by Permittee.

Appendix A: Emissions Calculations
Summary of Insignificant Activities

Unlimited Potential to Emit of Insignificant Activities (tons/year)

	PM	PM10	SO2	NOx	VOC	CO	Lead	Total HAPs
Chip Dryers	0.21	0.21	14.44	3.4	0.07	0.3	9.26E-05	6.89E-03
Grinding Operations (Unit #8)	1.42	0.43	--	--	--	--	0.01	0.01
Natural Gas-Fired Combustion	0.2	0.8	0.06	10.8	0.6	9.1	5.398E-05	2.04E-01
Propane or LPG Combustion	0.1	0.1	0.003	4.0	0.1	0.5	--	--
Powder Coating Booth	0.034	0.034	--	--	--	--	--	--
Other	10.0	10.0	--	--	10.0	--	--	--
Total	11.98	11.60	14.51	18.19	10.81	9.92	0.01	0.22

Potential to Emit of Insignificant Activities After Controls (tons/year)

	PM	PM10	SO2	NOx	VOC	CO	Lead	Total HAPs
Chip Dryers	0.21	0.21	14.44	3.37	0.07	0.31	0.00009	0.01
Grinding Operations (Unit #8)	0.01	0.004	--	--	--	--	0.00028	0.00
Natural Gas-Fired Combustion	0.21	0.82	0.06	10.80	0.59	9.07	0.00005	0.20
Propane or LPG Combustion	0.11	0.11	0.00	4.02	0.14	0.55	--	--
Powder Coating Booth	0.034	0.034	--	--	--	--	--	--
Other	10.00	10.00	--	--	10.00	--	--	--
Total	10.57	11.18	14.51	18.19	10.81	9.92	0.0004	0.21

Appendix A: Emissions Calculations
Insignificant Activity: Two Chip Dryers

Two Chip Dryers (0.625 MMBtu/hr each), exhausting to two 0.425 MMBtu/hr thermal oxidizers (integral to the unit), "TT" and "VV"
Assuming the combustible material is No. 6 fuel oil with 1.5% sulfur content.

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
2.1	122.64	1.5

Criteria Pollutant Emissions

	Pollutant				
	PM**	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	3 <i>*see below</i>	235.5 <i>(157S)***</i>	55.0	1.13	5.0
Potential Emission in tons/yr	0.2	14.4	3.4	0.1	0.3

Emission Factors are from AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03, 1-02-004-02/03, and 1-03-004-04) (AP-42 Supplement E 9/98,

*Particulate Matter emission factor for #6 fuel oil is 9.19(s) + 3.22 lb/kgal

**PM emission factor is filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.

***SO2 Emission Factor is calculated as 157 * Wt.% Sulfur

HAPs Emissions

	HAPs - Metals					
	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt
Emission Factor in lb/kgal	5.3E-03	1.3E-03	2.8E-05	4.0E-04	1.1E-03	6.0E-03
Potential Emission in tons/yr	3.22E-04	8.09E-05	1.70E-06	2.44E-05	6.70E-05	3.69E-04

	HAPs - Metals (continued)					
	Lead	Manganese	Mercury	Nickel	Phosphorous	Selenium
Emission Factor in lb/kgal	1.5E-03	3.0E-03	1.1E-04	8.5E-02	8.5E-03	6.8E-04
Potential Emission in tons/yr	9.26E-05	1.84E-04	6.93E-06	5.18E-03	5.19E-04	4.19E-05

Total HAPs (tons/yr) = 6.89E-03

Emission Factors are from AP-42, Table 1.3-11 (SCC#s 1-01-004-01/04), Supplement E 9/98.
No data was available in AP-42 for organic HAPs.

Methodology

1 gallon of No. 6 Fuel Oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) * (8,760 hrs/yr) * (1 kgal/1000 gallon) * (1 gal/0.150 MM Btu)

Emission (tons/yr) = Throughput (kgals/ yr) * Emission Factor (lb/kgal) * (1 ton/2,000 lb)

Appendix A: Emissions Calculations
Insignificant Activity: Unit #8

Tool Grinding Operations (Unit #8), Controlled by Baghouse "C"

According to the source, 1308 lb/yr PM is collected during 4080 hours of operation with 30% PM-10 and 1% lead

	PM	PM10	Lead
Uncontrolled Emissions (tons/yr)	1.42	0.43	0.01
Controlled Emissions (tons/yr)	0.014	0.004	0.00028

Methodology

PM PTE (tons/yr) = (1308 lb/4080 hr) * (1/0.99) * (8760 hr/yr) * (1 ton/2000 lb)

PM10 PTE (tons/yr) = PM PTE (tons/yr) * 0.3

Lead PTE (tons/yr) = PM PTE (tons/yr) * 0.01

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * (1-Control Efficiency)

Appendix A: Emissions Calculations
Insignificant Activity: Natural Gas Combustion Sources

Natural gas-fire combustion sources with heat input equal to or less than 10 MMBtu/hr (including Units #1 and #2)

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
24.7	215.9

Criteria Pollutant Emissions

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.2	0.8	0.06	10.8	0.6	9.1

*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

HAPs Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.267E-04	1.296E-04	8.098E-03	1.943E-01	3.671E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.398E-05	1.188E-04	1.512E-04	4.103E-05	2.267E-04

Total HAPs (tons/yr) = 2.04E-01

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

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) * (8,760 hrs/yr) * (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 3/98)

Emissions (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

Appendix A: Emissions Calculations
Insignificant Activity: Propane/LPG/Butane Combustion Sources

Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6 MMBtu/hr

Heat Input Capacity MMBtu/hr Potential Throughput kgals/year SO2 Emission factor = 0.10 x S
 S = Sulfur Content = 0.10 grains/100ft³

6.00 574.43

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 0.010 (0.10S)	NOx 14.0	VOC 0.5 **TOC value	CO 1.9
Potential Emission in tons/yr	0.1	0.1	0.003	4.0	0.1	0.5

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-03-010-02)

Methodology

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) * (8,760 hrs/yr) * (1 kgal/1000 gallon) * (1 gal/0.0915 MMBtu)

Emission (tons/yr) = Throughput (kgals/yr) * Emission Factor (lb/kgal) * (1ton/2000 lb)

Appendix A: Emissions Calculations
Insignificant Activity: Powder Coating Booth

Unit	Captured Emissions (lb/hr)	Cartridge Filter Efficiency (%)	Uncontrolled PTE PM/PM10 (lb/hr)	Controlled PTE PM/PM10 (lb/hr)	Controlled PTE PM/PM10 (ton/yr)
Powder Coating Booth	1.56	99.5%	1.57	0.008	0.034

Methodology

Captured Emissions (lb/hr) and Cartridge Filter Efficiency - provided by the Permittee
 PM and PM10 Emissions are assumed to be equal.

Uncontrolled PTE PM/PM10 (lb/hr) = Captured Emissions (lb/hr) / (Cartridge Filter Efficiency)

Controlled PTE PM/PM10 (lb/hr) = Uncontrolled PTE PM/PM10 (lb/hr) * (1 - Cartridge Filter Efficiency)

Controlled PTE PM/PM10 (ton/yr) = Controlled PTE PM/PM10 (lb/hr) * (8760 hr/yr) * (1 ton / 2000 lb)

Note: Based on Cost Analysis below, the cartridge filter has been determined to be integral to the process; therefore, the controlled PTE of PM and PM10 has been used in Potential to Emit Calculations.

Note: The powder coating booth can process eighteen 4-pound units per hour

Appendix A: Emissions Calculations

326 IAC 6-3-2 Emission Limits

Process Description	Process Weight Rate (ton/hr)	Process Weight Rate (lb/hr)	326 IAC 6-3-2 Allowable (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Controlled PM Emissions (lb/hr)	Capable of Compliance? (Y/N)
Furnace Charging, Melting, and Pouring (Unit #23)	8.195	16390	16.78	46.7	5.14	Y - with control device
#1 Handline and Harrison sand tanks and shakeout and conveyor operations for #1 Handline, #1 Harrison, #2 Harrison, #4 Sinto Mold Lines (Unit #6)	67.10	134195	47.36	239.9	2.40	Y - with control device
Shakeout and Sand Handling for #1, #2, #3 Sintos (Unit #20)	49.1	98195	44.41	175.1	1.75112	Y - with control device
Sand Treatment and Brass Reclaim Operations (Unit #13)	15	30000	25.16	54.0	0.54	Y - with control device
Corerroom Ventilation (Unit #19)	10.263	20526	19.51	9.01	9.01	Y
Iron Room (Unit #5)	0.78	1560	3.47	13.3	0.13	Y - with control device
Shotblasting (Unit #11)	2.73	5460	8.04	46.4	0.46	Y - with control device
Shotblasting (Unit #12)	1.37	2740	5.06	23.3	0.23	Y - with control device
Shotblasting (Unit #14)	8.195	16390	16.78	139.3	1.39	Y - with control device
Grinding & Cut-Off (Unit #15)	8.195	16390	16.78	139.3	1.39	Y - with control device
Machining, Grinding, & Polishing (Unit #16)	0.78	1560	3.47	13.3	0.13	Y - with control device
Machining, Grinding, & Polishing (Unit #17)	2.13	4260	6.80	36.2	0.36	Y - with control device
Machining, Grinding, & Polishing (Unit #18)	0.9	1800	3.82	15.3	0.15	Y - with control device
Machining, Grinding, & Polishing (Unit #26)	2.13	4260	6.80	36.2	0.36	Y - with control device
New Unit - Shot Blast Unit (Unit #29 - Approved in 2009)	2.0	4000	6.52	34.0	0.34	Y - with control device
New Unit - Cut-off Saw (Unit #30 - Approved in 2009)	2.0	4000	6.52	34.0	0.34	Y - with control device
Powder Coating Booth	0.037	73.57	0.45	1.57	0.01	Y - with control device

Interpolation of the data for process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation: $E = 4.10 P^{0.67}$
Interpolation and extrapolation of the data for process weight rates in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation: $E = 55.0 P^{0.11} - 40$
Where E = rate of emission (lb/hr), P = process weight rate (ton/hr)

Appendix A: Emissions Calculations
History of Plant Melt Rates

Year	Melt Capacity (million pounds/yr)	Melt Capacity (ton/hr)	Year's Actual Melt (lb/yr)	Year's Actual Melt (ton/hr) - Average	Yea's Actual Melt (ton/yr)
1971	21.9	1.25	2,211,292	0.13	1106
1972	21.9	1.25	4,930,941	0.28	2465
1973	43.8	2.50	9,865,745	0.56	4933
1974	43.8	2.50	11,247,644	0.64	5624
1975	65.7	3.75	11,230,766	0.64	5615
1976	65.7	3.75	12,718,848	0.73	6359
1977	87.6	5.00	17,582,696	1.00	8791
1978	109.5	6.25	21,970,816	1.25	10985
1979	109.5	6.25	24,495,745	1.40	12248
1980	109.5	6.25	17,910,840	1.02	8955
1981	109.5	6.25	18,929,683	1.08	9465
1982	109.5	6.25	18,502,914	1.06	9251
1983	109.5	6.25	20,420,304	1.17	10210
1984	109.5	6.25	24,920,257	1.42	12460
1985	109.5	6.25	26,837,990	1.53	13419
1986	109.5	6.25	26,201,515	1.50	13101
1987	109.5	6.25	29,743,205	1.70	14872
1988	109.5	6.25	30,085,844	1.72	15043
1989	109.5	6.25	29,054,185	1.66	14527
1990	109.5	6.25	29,934,624	1.71	14967
1991	109.5	6.25	26,954,366	1.54	13477
1992	109.5	6.25	28,743,892	1.64	14372
1993	109.5	6.25	29,046,384	1.66	14523
1994	109.5	6.25	36,116,256	2.06	18058
1995	109.5	6.25	33,536,470	1.91	16768
1996	121.7	6.95	36,932,952	2.11	18466
1997	121.7	6.95	38,610,379	2.20	19305
1998	121.7	6.95	38,888,685	2.22	19444
1999	121.7	6.95	44,010,200	2.51	22005
2000	121.7	6.95	46,535,783	2.66	23268
2001	121.7	6.95	42,901,350	2.45	21451
2002	121.7	6.95	40,896,700	2.33	20448
2003	121.7	6.95	43,996,800	2.51	21998
2004	143.6	8.20	48,445,720	2.77	24223
2005	143.6	8.20	52,036,145	2.97	26018
2006	143.6	8.20	56,880,190	3.25	28440
2007	143.6	8.20	43,093,910	2.46	21547



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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: John Flesher
Ford Meter Box Company, Inc.
POB 398 775 Manchester Avenue
Wabash, Indiana 46992

DATE: December 8, 2009

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Part 70
169-25077-00003

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Chris Shanks (Ford Meter Box Company, Inc.)
Mrs. Kathy Moore (KERAMIDA)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



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

December 8, 2009

TO: Wabash Carnegie Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Ford Meter Box Company, Inc.
Permit Number: 169-25077-00003

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 12/8/2009 Ford Meter Box Company, Inc. 169-25077-00003 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		John Flesher Ford Meter Box Company, Inc. PO Box 398, 775 Manchester Ave Wabash IN 46992-0398 (Source CAATS)										
2		Chris Shanks SR VP & Gen Manager Ford Meter Box Company, Inc. PO Box 398, 775 Manchester Ave Wabash IN 46992-0398 (RO CAATS)										
3		Wabash County Commissioners 1 West Hill Street Wabash IN 46992 (Local Official)										
4		Wabash City Council and Mayors Office 202 South Wabash Street Wabash IN 46992 (Local Official)										
5		Wabash County Health Department 89 W. Hill, Memorial Hall Wabash IN 46992-3184 (Health Department)										
6		Ted Little Wabash County Council 1076 West 900 North North Manchester IN 46962 (Affected Party)										
7		Wabash Carnegie Public Library 188 W Hill St Wabash IN 46992-3048 (Library)										
8		Mrs. Kathy Moore KERAMIDA Environmental, Inc. 401 North College Indianapolis IN 46202 (Consultant)										
9												
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--