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

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

July 19, 2004

TO: Interested Parties / Applicant

RE: The Ford Meter Box Company, Inc. / 169-18446-00003

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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.

Enclosures
FNPER.dot 9/16/03

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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 1-800-451-6027

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments)
and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F169-5469-00003	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 13, 1996 Expiration Date: December 13, 2001

First Administrative Amendment 169-10615-00003, issued March 8, 1999
Second Administrative Amendment 169-10615-00003, issued February 10, 2000
Third Administrative Amendment 169-10615-00003, issued April 6, 2001

First Significant Permit Revision: 169-18446-00003	Pages Affected: 1, 4, 5, 22, 24, 26, 27, 29, 30 and 31
Issued by :Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:July 19, 2004

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SECTION A SOURCE SUMMARY

A.1 General Information

The Permittee owns and operates a brass captive foundry.

Responsible Official:	Senior Vice President
Source Address:	775 Manchester Avenue, Wabash, Indiana, 46992
Mailing Address:	P. O. Box 398, 775 Manchester Avenue, Wabash, Indiana, 46992
SIC Code:	3366, 3494, 3053
County Location:	Wabash
County Status:	Attainment for all criteria pollutants
Source Status:	Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

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

(a) two (2) natural gas fired boilers (Units #1 and #2) with a maximum heat input of 12.5 million British thermal Units per hour, using No. 2 and No. 6 fuel oils as back-up fuels, with Unit #1 and Unit #2 exhausting at Stack “A”;

(b) one (1) water based paint dipping operation (Unit #3) for coating iron castings, installed in 1973, with a maximum coating rate of 7 baskets per hour exhausting at Stack “F”;

(c) one (1) black asphalt based paint dipping operation (Unit #4) for coating iron castings, installed in 1973, with a maximum coating rate of 7 baskets per hour exhausting at Stack “F”;

(d) one (1) Binks Teflon spray coating booth (Unit #21), installed in 1980, using an automatic air atomization application method for coating brass balls and air filters for overspray control exhausting at Stack “OO”;

(e) one (1) nut coating operating (Unit #27), installed in 1996, utilizing a spin coating application system;

(f) the No. 1 Handline Molding Line sand system (Unit #6) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack “H”;

(g) the Harrison’s Molding Line and Sinto #4 Molding Line sand system (Unit #7) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack “H”;

(h) the No. 1 Handline Shakeout Conveyor sand system (Unit #9) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack “H”;

(i) the Sinto Nos. 1, 2 and 3 Molding Line sand system (Unit #20) ventilated to a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack “KK”;

(j) the sand treatment and brass reclaim operations (Unit #13), controlled by a baghouse identified as Baghouse ”T”;

(k) one (1) Iron Room (Unit #5) for cast iron grinding, boring and tapping operations. Particulate emissions for all operations conducted in the room are controlled by a baghouse identified as Baghouse “G”;

(l) one (1) Pangborn 12GN steel shot blast cleaner (Unit #11) ventilated to a baghouse identified as Baghouse “Q” for particulate emissions control;

(m) one (1) Pangborn 6GN steel shot blast cleaner (Unit #12) ventilated to a baghouse identified as Baghouse “S” for particulate emissions control;

(n) one (1) continuous flow steel shot blast cleaner (Unit #14) for removing sand and internal cores from the casting, ventilated to a baghouse identified as Baghouse "U" for particulate emissions control;
(o) foundry grinding and cut-off operations (Unit #15) with emissions controlled by a baghouse identified as Baghouse "V";
(p) various machining, grinding, and polishing operations (Unit #16) ventilated to a baghouse identified as Baghouse "W" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
(q) various machining, grinding, and polishing operations (Unit #17) ventilated to a baghouse identified as Baghouse "X" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
(r) various machining, grinding, and polishing operations (Unit #18) ventilated to a baghouse identified as Baghouse "Y" for capturing metal particulate;
(s) the coreroom ventilation (Unit #19) including ventilation of twelve (12) natural gas fired core making units with a total maximum heat capacity of 1.624 million British thermal Units per hour;
(t) various machining, grinding, and polishing operations (Unit #26) ventilated to a baghouse identified as Baghouse "BC" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse; and
(u) unit #23, consisting of six (6) 5-ton each electric channel induction furnaces each with a 1.25 tons per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the box induction furnace and crucible induction furnace cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points, controlled by nine (9) baghouse modules known as "UU" with a common inlet but nine (9) individual stack discharges.

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

(a) the tool grinding, saw dust, and rubber grinding operations (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 combustibles per hour and each equipped (as integral part of the equipment) with a 0.425 million British thermal Units per hour thermal oxidizer, identified as After Burner "TT" and After Burner "VV", respectively;
(d) two (2) diesel fuel fired 423 horsepower (2.9 million British thermal Units per hour) emergency generators;
(e) natural gas-fired combustion sources with heat input equal to or less than ten (10) million British thermal Units per hour;
(f) 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;
(g) combustion source flame safety purging on startup;
(h) 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;
(i) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;
(j) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(k) refractory storage not requiring air pollution control equipment;
(l) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
(m) machining where an aqueous cutting coolant continuously floods the machining interface;
(n) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;
(o) cleaners and solvents with low vapor pressure and with a combined usage of less than 145 gallons per 12 months;
(p) brazing equipment, cutting torch, soldering equipment and welding equipment not resulting in HAP emissions;
(q) close loop heating and cooling systems;
(r) cutting 200.00 linear feet or less of one inch (1") plate or equivalent;
(s) using 80 tons or less of welding consumables;
(t) operations using aqueous solutions with less than 1 percent of VOCs excluding HAPs;
(u) water based adhesives that are less than or equal to 5 percent VOCs by volume excluding HAPs;
(v) quenching operations used with heat treating processes;
(w) replacement or repair of electrostatic precipitators, bags in baghouse and filters in other air filtration equipment;
(x) heat exchanger cleaning and repair;
(y) paved and unpaved roads and parking lots with public excess;
(z) purging of gas lines and vessels not associated with production process;
(aa) equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup;
(bb) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;
(cc) stationary fire pumps;
(dd) 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;
(ee) mold release agent using low volatile products;
(ff) a laboratory as defined in 326 IAC 2-7-1(20)(C);
(gg) 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; and
(hh) one (1) 19,810 gallon No.2 fuel oil underground storage tank.
(ii) one (1) parts washer with no VOC emissions exhausting through stack/vent “BD’.

A.4 <u>FESOP Applicability</u> [326 IAC 2-8-2]
This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 General Requirements [IC 13-15] [IC 13-17] (Prior to July 1, 1996: IC 13-7 and IC 13-1-1)
The permittee shall comply with the provisions of IC 13-15 (Permits Generally), IC 13-17 (Air Pollution Control) and the rules promulgated thereunder.

B.2 Definitions [326 IAC 2-8-1]
Terms in this permit shall have the meaning assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11 (prior to July 1, 1996, IC 13-7-2, IC 13-1-1-2), 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]
This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-5-5-3 (prior to July 1, 1996, IC 13-7-10-2.5), of the permit.

B.4 Enforceability [326 IAC 2-8-6]
(a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.

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

B.5 Termination of Right to Operate [326 IAC 2-8-9]
The expiration of this permit terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-7.

B.6 Severability [326 IAC 2-8-4(4)]
(a) The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(b) Indiana rules from 326 IAC quoted 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.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
This permit does not convey any property rights of any sort or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]
(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall also provide additional information as requested by IDEM, OAM, to determine the compliance status of the source in accordance with 326 IAC 2-8-5(a).

(c) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that the IDEM, OAM 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.

(d) Upon written request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. For information claimed to be confidential, the Permittee shall furnish such records directly to both the U.S. EPA and IDEM, OAM, along with a claim of confidentiality.

Such confidentiality claims shall meet the requirements of 40 CFR Part 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM, OAM).

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]
IDEM, OAM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]
(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) enforcement action;

(2) permit termination, revocation and reissuance or modification; and

(3) denial of a permit renewal application.

(b) 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.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]
Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

A responsible official is defined at 326 IAC 2-7-1(33).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]
(a) The Permittee shall annually certify that the source has complied with the terms and conditions contained in this permit, including emission limitations, standards, and work practices. The certification shall be submitted July 1 to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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) This annual compliance certification report required by this permit shall be timely if:

(1) Delivered by U.S. mail and postmarked on or before the date it is due; or

(2) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.

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

(1) The identification of each term and 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; and

(5) Such other facts as IDEM, OAM, may require to determine the compliance status of the source.

B.13 Preventive Maintenance Plan [326 IAC 2-8-4(9)] [326 IAC 1-6-3]

(a) The Permittee shall prepare, maintain and implement operation and Preventive Maintenance Plans as necessary including the following information on each:

(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;

(3) Corrective actions that will be implemented in the event an inspection indicates an out of specification situation;

(4) A time schedule for taking such corrective actions including a schedule for devising additional corrective actions for situations that may not have been predicted; and

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

(b) Preventive Maintenance Plans shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

B.14 Emergency Provision [326 IAC 2-8-12]

(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, except as provided as follows:

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

(4) The Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency occurrence by telephone or facsimile;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management) or,
Telephone No.: 317-233-0178
Facsimile No.: 317-233-5967

(5) The Permittee submitted written notice or by facsimile of the emergency to:

Indiana Department of Environmental Management,
Compliance Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency. The notice shall fulfill the requirement of 326 IAC 2-8-4(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(C)(33).

(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 any emergency or upset provision contained in

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

(e) IDEM, OAM, may require that the preventive maintenance plan required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) 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.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) the Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in clause (B) above.

B.15 <u>Deviations from Permit Requirements and/or Conditions</u> [326 IAC 2-8-4(3)(C)(ii)]
Deviations from requirements, (for emergencies see Condition B.14 - Emergency Provision) the probable cause of such deviations, and any corrective actions or preventive measures taken shall be reported to:

Indiana Department of Environmental Management,
Compliance Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

Written notification shall be submitted on the attached Deviation Occurrence Reporting Forms.

B.16 <u>Permit Modification, Reopening, Revocation and Reissuance, or Termination</u>
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8(a)]
[326 IAC 2-8-8(b)] [326 IAC 2-8-8(c)]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a 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 2-8-4(5)(C)]

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 15-15-7-2 (prior to July 1, 1996, in IC 13-7-10-5) or if the commissioner determines any

of the following:

(1) That it 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 2-8-8(a)]

(c) Proceedings by IDEM, OAM, 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 practical. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and shall include, at minimum, the information specified in 326 IAC 2-8-3. 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(20).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-5-3]

(1) The Permittee has a duty to submit a timely and complete permit renewal application. A timely renewal application is one that is:

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

(B) Delivered by U. S. mail and postmarked on or before the date it is due; or

(C) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.

(2) If IDEM, OAM 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 until the renewal permit has been issued or denied.

(c) Right to Operate After Application of Renewal [326 IAC 2-8-9]
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 2-8 until IDEM, OAM 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, OAM, any additional information identified as needed to process the application.

B.18 Administrative Permit Amendment [326 IAC 2-8-10]

(a) An administrative permit amendment is a FESOP revision that makes changes of the type specified under 326 IAC 2-8-10(a).

(b) An administrative permit amendment may be made by IDEM, OAM, consistent with the procedures specified under 326 IAC 2-8-10(b).

(c) The Permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]

(a) A permit modification is any revision to this permit that cannot be accomplished as an administrative permit amendment under 326 IAC 2-8-10.

(b) Minor permit modification procedures shall follow the procedures specified under 326 IAC 2-8-11(b)(1)(A) through (F).

(c) An application requesting the use of minor modification procedures shall meet the requirements of 326 IAC 2-8-3(c) and shall include the information required in 326 IAC 2-8-11(b)(3)(A) through (D).

(d) The Permittee may make the change proposed in its minor permit modification application immediately after it files such application unless the change is subject to the construction permit requirements of 326 IAC 2-1, 326 IAC 2-2, or 326 IAC 2-3. After the Permittee makes the change allowed under minor permit modification procedures, and until IDEM, OAM takes any of the actions specified in 326 IAC 2-8-11(b)(5), the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it. [326 IAC 2-8-11(b)(6)]

B.20 Significant Permit Modification [326 IAC 2-8-11(d)]

(a) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments.

(b) Any significant change in existing monitoring permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions of this permit shall be considered significant.

(c) Nothing in 326 IAC 2-8-11(d) shall be construed to preclude the Permittee from making changes consistent with 326 IAC 2-8 that would render existing permit compliance terms and conditions irrelevant.

(d) Significant modifications of this permit shall meet all requirements of 326 IAC 2-8, including those for application, public participation, and review by the U.S. EPA, as they apply to permit issuance and renewal.

B.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]
Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification

procedures may be used for modifications of this permit involving the use of economic incentives, marketable FESOP's, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable implementation plan (SIP) or in applicable requirements promulgated by the U.S. EPA.

B.22 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d), without 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) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions);

(3) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency (EPA), 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. 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(C)(33); and

(4) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review. Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b)(1), (c)(1), and (d).

(b) For each such 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.

(c) Emission trades [326 IAC 2-8-15(c)]

The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints in section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7) and subject to the constraints in section (a) of this condition and those in 326 IAC 2-8-15(d)

B.23 Construction Permit Requirement [326 IAC 2-1]
Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM)

B.24 Inspection and Entry [326 IAC 2-8-5(a)(2)]
Upon presentation of IDEM identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

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

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of demonstrating compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of demonstrating compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

B.25 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAM, consistent with the fee schedule established in 326 IAC 2-8-16.

(b) Failure to pay may result in administrative enforcement action, revocation of this permit, referral to the Office of Attorney General for collection, or other appropriate measures.

(c) The Permittee shall pay the annual fee within thirty (30) calendar days of receipt of a billing by IDEM, OAM or in a time period that is consistent with the payment schedule issued by IDEM, OAM.

(d) If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before due date, the Permittee shall call the following telephone numbers: 1-800-451-6027 or 317-233-0179 (ask for OAM, Data Support Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]
Pursuant to 326 IAC 2-8, emissions of any regulated pollutant from the entire source shall not exceed 99 tons per 365 day period. Emissions of hazardous air pollutants (HAP) from the entire source shall not exceed 9 tons per 365 day period for any individual HAP or 24 tons per 365 day period of any combination of HAPs. Emissions shall include those from all emission points at the source including those that are insignificant as defined in 326 IAC 2-7-1(20). The source shall be allowed to add insignificant activities not already listed in this permit, as long as the total emissions from the source do not exceed the above specified limits. In the event that any condition or combination of conditions in Section D of this permit differs from the above, the most restrictive limit will prevail.

C.2 Opacity
Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following:

(a) Visible emissions shall not exceed an average of 40 percent opacity in 24 consecutive readings,

(b) Visible emissions shall not exceed 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

C.3 Open Burning
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.

C.4 Fugitive Dust Emissions
The Permittee shall be in violation of 326 IAC 6-4 if any of the criteria specified in 326 IAC 6-4-2 (1) through (4) are violated.

C.5 Operation of Equipment [326 IAC 2-8-5(a)(4)]
(a) All equipment that potentially might emit pollutants into the ambient air shall be properly operated and maintained.

(b) Unless otherwise stated in this permit, all air pollution control equipment listed in this permit shall be operated at all times that the emission unit(s) vented to the control equipment is in operation.

(c) The permittee shall perform all necessary maintenance and make all necessary attempts to keep all air pollution control equipment in proper operating condition at all times.

Testing [326 IAC 2-8-4(3)]

C.6 Performance Testing
Compliance testing shall be conducted on the Baghouse “UU” for PM and PM10 within 18 months of issuing FESOP. The testing shall be performed according to the provisions of 326 IAC 3-2.1 (Source Sampling Procedures) and by methods in the approved test protocol. The test protocol shall be submitted to:

Indiana Department of Environmental Management

Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. [326 IAC 2.1-2].

Compliance Monitoring [326 IAC 2-8-5(a)(1)]

C.7 Compliance Monitoring [326 IAC 2-8-4(3)]
Compliance with applicable requirements shall be documented in accordance with the provisions of 326 IAC 2-8-4(3). The Permittee shall be responsible for installing any necessary equipment and initiating any additional monitoring no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, with full justification of the reasons for inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

C.8 Maintenance of Monitoring Equipment [326 IAC 1-6]
The Permittee shall perform all necessary maintenance and make all necessary attempts to keep all required monitoring equipment in proper operating condition at all times. In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. Preventive maintenance plans of the monitors shall be implemented. In addition prompt correction, as indicated, shall be initiated within the time frames specified, whenever the parameters monitored fall outside of the indicated values.

C.9 Monitoring Methods [326 IAC 3]
Any monitoring or testing performed to meet the requirements of this permit shall be performed, whenever applicable according to the provisions of 326 IAC 3, or 40 CFR Part 60, Appendix A, as appropriate, unless some other method is specified in this permit.

C.10 Broken Bag (Leak) Detector Specifications
Whenever a condition in this permit requires the installation of broken bag (leak) detector, the detector shall be equipped with a leak warning alarm and the monitoring probe of the detector shall be able to detect potential leak and alert proper plant personnel immediately. The alarm of the detector shall be tripped every time that a control device is initially started, cleaned or any other unusual activities involving ventilation system. The instrument shall be quality assured and maintained as specified by the vendor.

Corrective Actions [326 IAC 2-8-4(1)] [326 IAC 2-8-5(1)]

C.11 Failure to Take Corrective Action

For each unit for which parametric monitoring is required, appropriate corrective actions as described in the Preventive Maintenance Plan shall be taken when indicated by monitoring information. Failure to take corrective action following an excursion of a surrogate monitoring parameter within the prescribed time will constitute a violation of the permit unless taking the corrective action set forth in the Plan would be unreasonable.

After investigating the reason for the excursion, the permittee may be excused from taking further corrective action for any of the following reasons:

(a) Providing that prompt action was taken to correct the monitoring equipment, that the monitoring equipment malfunctioned, giving a false reading; or

(b) The permittee has determined that the parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or

(c) An automatic measurement was taken when the process was not operating; or

(d) The permittee determines that the process has already returned to operating within "normal" parameters and no corrective action is required.

Records shall be kept of all instances in which the action values were not met and of all corrective actions taken. In the event of an emergency as defined in 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

Whenever the results of the stack test performed in conformance with Condition C.6 - Performance Testing, of this permit exceed the level specified in any condition of this permit, appropriate corrective actions shall be submitted to IDEM-OAM within 30 (thirty) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are not acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.

Record Keeping and Reporting [326 IAC 2-8-4(3)]

C.13 Monitoring Data Availability

All observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions. Records shall be kept of the times that the equipment is not operating. If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality. If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded. At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed 5 percent of the operating time in any quarter. Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason.

C.14 General Record Keeping Requirements

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one hour upon verbal request of an IDEM, OAM representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two years providing they are made available within thirty (30) days after written request.

(b) Records of required monitoring information shall include:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) All preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it;

(5) Relevant work purchases orders;

(6) Quality assurance and quality control procedures;

(7) Operator’s standard operating procedures;

(8) Manufacturer's specifications or their equivalent; and

(9) Equipment "troubleshooting" guidance.

C.15 General Reporting Requirements

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be timely if:

(1) Delivered by U.S. mail and postmarked on or before the date it is due; or

(2) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.

(c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.

(d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.

(e) The first report shall cover the period commencing the date of issuance of this permit and ending March 31, 1997.

SECTION D.1 FACILITY OPERATION CONDITIONS

(a)	two (2) natural gas fired boilers (Units #1 and #2) with a maximum heat input of 12.5 million British thermal Units per hour, using No. 2 and No. 6 fuel oils as back-up fuels, with Unit #1 and Unit #2 exhausting at Stack "A".

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter
Pursuant to 326 IAC 6-2-3 (Emission Limitations for Source of Indirect Heating), the particulate matter emissions from the two (2) 12.5 million British thermal Units per hour boilers shall not exceed 0.8 pounds per million British thermal Units.

D.1.2 Sulfur Dioxide (SO_2)
Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 12.5 million British thermal Units per hour boiler shall be limited to 0.5 and 1.6 pounds per million British thermal Units for No. 2 and No. 6 fuel oil, respectively.

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

D.1.3 No. 6 Fuel Oil Usage
The consumption of No. 6 fuel oil from the two (2) 12.5 million British thermal Units per hour boilers shall be limited, to 56,633 U.S. gallons per month, based on maximum sulfur content of 1.6 percent for No. 6 fuel oil. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility.

Testing Requirements [326 IAC 2-8-4(3)]

D.1.5 Sulfur Dioxide Emissions and Sulfur Content
The Permittee shall test for:

(a) Sulfur content of No. 2 fuel oil or No. 6 fuel oil burned by the 12.5 million British thermal units per hour boiler, using 40 CFR Part 60, Appendix A, Method 19 for each load of oil delivered;

(b) Sulfur dioxide emissions from the 12.5 million British thermal units per hour boiler, using 40 CFR Part 60, Appendix A, Method 6 each time a test to comply with Condition D.1.2 is performed.

Sulfur content tests may be made by the oil supplier.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.6 Fuel Oil Sampling and Analysis
Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of each load delivered is acceptable, in lieu of the above, if accompanied by a certification.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.7 Fuel Oil Usage

(a) Complete and sufficient records shall be kept to establish compliance with the fuel oil usage limits and sulfur dioxide emission limit established in this permit and contain a minimum of the following:

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage during the period not to exceed 31 days and calculated sulfur dioxide content;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

(4) Fuel supplier certifications.

(b) The supplier certification shall contain, as a minimum, the following:

(1) The name of the oil supplier; and

(2) A statement from the oil supplier that certifies the sulfur content and heat content of the fuel oil.

D.1.8 Quarterly Reporting

A quarterly summary to document compliance with operation Conditions D.1.3 shall be submitted, to the address listed in Condition C.15 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

(b)	one (1) water based paint dipping operation (Unit #3) for coating iron castings, installed in 1973, with a maximum coating rate of 7 baskets per hour exhausting at Stack "F";
(c)	one (1) black asphalt based paint dipping operation (Unit #4) for coating iron castings, installed in 1973, with a maximum coating rate of 7 baskets per hour exhausting at Stack "F";
(d)	one (1) Binks Teflon spray coating booth (Unit #21), installed in 1980, using an automatic air atomization application method for coating brass balls and air filters for overspray control; and
(e)	one (1) nut coating operating (Unit #27), installed in 1996, utilizing a spin coating application system.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compound
The total volatile organic compounds (VOC) delivered to the applicators of asphalt based paint dipping operation (Unit #4) shall be limited to 4.45 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.2 Hazardous Air Pollutants
The hazardous air pollutant emissions shall be limited such that source wide single hazardous air pollutant (HAP) emissions shall not exceed 0.75 tons per month. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D. 2.4 Particulate Matter (PM) Overspray
The dry filters for particulate matter overspray control shall be in operation at all times when the Binks Teflon spray coating booth (Unit #21) is in operation. The facility shall comply with 326 IAC 6-3-2(c):

$E = 4.10\ P^{0.67}$ (for process weight rates up to 30 tons per hour)

or $E = 55.0\ P^{0.11} - 40$ (for process weight rates in excess of 30 tons per hour)

where: E = maximum allowable particulate matter emission rate (pounds per hour)
P = process weight rate (tons per hour)

D.2.5 Monitoring
Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To document compliance with Condition D.2.4, observations shall be made daily of the overspray while the Binks Teflon spray coating booth is in operation.

Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed.

Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.2.6 Volatile Organic Compound (VOC) Usage

The Permittee shall maintain records at the source of the materials used that contain any VOCs. The records shall be complete and sufficient to establish compliance with the VOC usage limits and/or VOC emission limits established in this permit. The records shall contain a minimum of the following:

(a) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;

(b) The VOC content (weight percent) of each material used; and

(c) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable.

D.2.7 Hazardous Air Pollutant (HAP)

The Permittee shall maintain records at the facility of the materials used that contain any HAPs. The records shall be complete and sufficient to establish compliance with the HAP usage limits and/or HAP emission limits that may be established in this permit. The records shall contain a minimum of the following:

(a) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;

(b) The HAP content (weight percent) of each material used;

(c) The weight of HAPs emitted for each compliance period, considering capture and control efficiency, if applicable; and

(d) Identification of the facility or facilities associated with the usage of each HAP.

D.2.8 Quarterly Reporting

A quarterly summary to document compliance with operation Conditions D.2.1 and D.2.2 shall be submitted, to the address listed in Condition C.15 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS

(f) the No. 1 Handline Molding Line sand system (Unit #6) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "H";
(g) the Harrison's Molding Line and Sinto #4 Molding Line sand system (Unit #7) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "H";
(h) the No. 1 Handline Shakeout Conveyor sand system (Unit #9) equipped with a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "H";
(i) the Sinto Nos. 1, 2 and 3 Molding Line sand system (Unit #20) ventilated to a baghouse which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "KK";
(u) unit #23, consisting of six (6) 5-ton each electric channel induction furnaces each with a 1.25 tons per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the box induction furnace and the crucible induction furnace cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points, controlled by nine (9) baghouse modules known as "UU" with a common inlet but nine (9) individual stack discharges.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter [326 IAC 2–2] [326 IAC 6-3-2]
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities covered in Section D.3 are as follows:

Facilities	Process Weight Rate (ton/hr)	326 IAC 6-3-2 PM Allowable Emissions (lb/hr)	PM Compliance Calculations (lb/hr)
Unit #6, Unit #7 and Unit #9 (total)	50	44.6	0.64
Unit #20	45	43.6	0.27
Unit #23	8.195	16.78	1.77

Compliance with these limits make 326 IAC 2-2 not applicable.

D.3.2 Particulate Matter Less Than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.31	1.35
Unit #20	0.55	2.4
Unit #23	3.54	15.52

Compliance with these limits make 326 IAC 2-7 not applicable.

D.3.3 Hazardous Air Pollutants (Lead) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the Lead emissions shall be limited as follows:

Facilities	Lead Emissions (lb/hr)	Lead Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.005	0.022
Unit #20	0.002	0.009
Unit #23	1.02	4.47

Compliance with these limits make 326 IAC 2-7 not applicable.

D.3.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility.

Testing Requirements [326 IAC 2-8-4(3)]

D.3.5 Particulate Matter
Within 18 months after issuance of this permit, the Permittee shall perform PM and PM10 testing on the exhaust stack for the Baghouse "UU" utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM10 includes filterable and condensible PM10.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.3.6 Broken Bag Detectors
For the baghouses equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction. The instrument used for leak detection shall meet the specification of Condition C.10 and be maintained according to Condition C.8. The detector shall also be subject to approval by IDEM, OAM.

D.3.7 Visible Emission Notations
Visible emission notations of the baghouse exhaust stacks without broken bag detector shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processed operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation specified condition prescribing visible emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.3.8 Preventive Inspections
The following inspections shall be performed when the process equipment controlled by a baghouse is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Daily:

(a) Baghouse inlet temperature and air flow rate;
(b) Adequate dust removal from hoppers;
(c) Compressed air supply;
(d) Proper isolation damper operation; and
(e) Monitoring of bag cleaning cycle.

Weekly:
(a) Bag cleaning mechanisms; and
(b) Condition of the ductwork.

Monthly:
(a) Internal inspection for air leaks;
(b) Bag condition; and
(c) Fan condition and operation.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.3.9 Operational Parameters
The Permittee shall maintain daily records at the stationary source of the following values:

(a) Unexpected triggering of broken bag (leak) detector;

(b) Visible emission observations;

(c) Checklist with dates and initials for each preventive action performed; and

(d) Records of corrective actions.

D.3.10 General Reporting
Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted in accordance with Condition B.12.

SECTION D.4 FACILITY OPERATION CONDITIONS

(j) the sand treatment and brass reclaim operations (Unit #13), controlled by a baghouse identified as Baghouse "T";
(k) one (1) Iron Room (Unit #5) for cast iron grinding, boring and tapping operations. Particulate emissions for all operations conducted in the room are controlled by a baghouse identified as Baghouse "G";
(l) one (1) Pangborn 12GN steel shot blast cleaner (Unit #11) ventilated to a baghouse identified as Baghouse "Q" for particulate emissions control;
(m) one (1) Pangborn 6GN steel shot blast cleaner (Unit #12) ventilated to a baghouse identified as Baghouse "S" for particulate emissions control;
(n) one (1) continuous flow steel shot blast cleaner (Unit #14) for removing sand and internal cores from the casting, ventilated to a baghouse identified as Baghouse "U" for particulate emissions control;
(o) foundry grinding and cut-off operations (Unit #15) with emissions ventilated to and controlled by a baghouse identified as Baghouse "V";
(p) various machining, grinding, and polishing operations (Unit #16) ventilated to a baghouse identified as Baghouse "W" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
(q) various machining, grinding, and polishing operations (Unit #17) ventilated to a baghouse identified as Baghouse "X" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;
(r) various machining, grinding, and polishing operations (Unit #18) ventilated to a baghouse identified as Baghouse "Y" for capturing metal particulate;
(s) the coreroom ventilation (Unit #19) including ventilation of twelve (12) natural gas fired core making units with a total maximum heat capacity of 1.624 million British thermal Units per hour; and
(t) various machining, grinding, and polishing operations (Unit #26) ventilated to a baghouse identified as Baghouse "BC" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities covered in Section D.4 are as follows:

Facilities	Process Weight Rate (ton/hr)	326 IAC 6-3-2 PM Allowable Emissions (lb/hr)	PM Compliance Calculations (lb/hr)
Unit #5	0.78	3.47	2.13
Unit# 11	2.73	8.04	0.88
Unit #12	1.37	5.06	0.44
Unit #13	15.0	25.16	1.33
Unit #14	8.195	16.78	4.82
Unit# 15	8.195	16.78	4.81
Unit #16	0.78	3.47	0.19
Unit #17	2.23	7.02	0.54
Unit #18	0.90	3.82	0.22
Unit #19	8.0	16.51	16.02
Unit #26	4.28	4.28	0.52

Compliance with these limits make 326 IAC 2-2 not applicable.

D.4.2 Particulate Matter Less Than Ten (10) Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #5	0.13	0.57
Unit# 11	0.51	2.24
Unit #12	0.26	1.12
Unit #13	1.33	5.83
Unit #14	2.81	12.32
Unit# 15	0.97	4.24
Unit #16	0.21	0.91
Unit #17	0.60	2.62
Unit #18	0.24	1.06
Unit #19	5.34	23.39
Unit #26	0.239	1.05

Compliance with these limits make 326 IAC 2-7 not applicable.

D.4.3 Hazardous Air Pollutants (Lead) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the Lead emissions shall be limited as follows:

Facilities	Lead Emissions (lb/hr)	Lead Emissions (tons/yr)
Unit #5	0.011	0.045
Unit# 11	0.0078	0.034
Unit #12	0.0039	0.017
Unit #13	0.009	0.036
Unit #14	0.043	0.19
Unit# 15	0.20	0.87
Unit #16	0.0071	0.031
Unit #17	0.02	0.087
Unit #18	0.008	0.035
Unit #26	0.038	0.167

Compliance with these limits make 326 IAC 2-7 not applicable.

D.4.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.4.5 Broken Bag Detectors
For the baghouses equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction. The instrument used for leak detection shall meet the specification of Condition C.10 and be maintained according to Condition C.8. The detector shall also be subject to approval by IDEM, OAQ.

D.4.6 Visible Emission Notations
Visible emission notations of the baghouse exhaust stacks without broken bag detector shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation specified condition prescribing visible emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.4.7 Preventive Inspections
The following inspections shall be performed when the process equipment controlled by a baghouse is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Daily:
(a) Baghouse inlet temperature and air flow rate;
(b) Adequate dust removal from hoppers;
(c) Compressed air supply;
(d) Proper isolation damper operation; and
(e) Monitoring of bag cleaning cycle.

Weekly:
(a) Bag cleaning mechanisms; and
(b) Condition of the ductwork.

Monthly:
(a) Internal inspection for air leaks;
(b) Bag condition; and
(c) Fan condition and operation.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.4.8 Operational Parameters
The Permittee shall maintain daily records at the stationary source of the following values:

(a) Unexpected triggering of broken bag (leak) detector;

(b) Visible emission observations;

(c) Checklist with dates and initials for each preventive action performed; and

(d) Records of corrective actions.

D.4.9 General Reporting
Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted in accordance with Condition B.12.

State Form 47738 (5-96)

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003

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:

Deviation Occurrence Reporting Form (For Control Equipment Monitoring)

Deviation Occurrence Reporting Form (For Material Usage, Quality, Etc.)

Relocation Notification

Test Result (specify) _____

Report (specify) _____

Notification (specify) _____

Other (specify) _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

State Form 47739 (5-96)

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
DEVIATION OCCURRENCE REPORT
(For Control Equipment Monitoring Only)

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003

A separate copy of this report must be submitted for **each** monitoring device on all control equipment listed in this permit. Attach a signed certification to complete this report.

Stack/Vent ID:	
Control Equipment: (ex: thermal oxidizer, scrubber, baghouses)	
Type of Parameter Monitored: (ex: temperature, pressure drop, efficiency)	
Continuously	Periodically, at a frequency of:
Parameter Operating Restrictions/Range: (ex: 1,400^{0}F, 2-4 psi pressure drop)	
Report Covers From: (date: month, day, year)	To:
No Deviations from the Parameter Restriction/Range Occurred During the Monitoring Period. Complete Records Maintained at the Facility Verify Compliance with this Condition.	
Summary of Deviations from the Parameter Restriction/Range During the Monitoring Period are Identified Below. Complete Records Maintained at the Facility.	

	For Parameter Recorded Continuously	For Parameter Recorded Periodically
Total Unit Operating Time		
Total Time of Deviations (Identify All Deviations)		
Percent of Time Indicating Deviations ([2]/[1]x100)		

Date of Deviation	Start/Stop Time of Deviation (Continuous Monitoring Only)	Actual Value Recorded	Reason for Deviation & Corrective Action Taken

State Form 47741 (5-96)

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
DEVIATION OCCURRENCE REPORT

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003

A separate copy of this report must be submitted for **each** material type, quantity usage and operation limitation (except control equipment monitoring) listed in this permit .
Attach a signed certification to complete this report.

Stack/Vent ID:
Equipment/Operation:
Parameter Subject to Material Type, Quantity Usage or Operation Limitations Specified in the Permit: (ex: 2500 pounds per day, 300 hours per year, 5000 gallons per month)
Determination Period for this Parameter: (ex: 365-day rolling sum, fixed monthly rate)
Permit Has No Rate Limitations for this Parameter.
Content Restriction for this Parameter: (ex: maximum of 40 percent VOC in inks, 0.5 percent sulfur content)
Demonstration Method for this Parameter: (ex: MSDS, Supplier, material sampling & analysis)
Permit Has No Content Limitations for this Parameter.
Comments:

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

FESOP Quarterly Report

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003
Facility: two (2) 12.5 million British thermal Units per hour boiler
Parameter: sulfur dioxide
Limits: 679,603 U.S. gallons of No. 6 fuel oil burned per year, based on maximum sulfur content of 1.6 percent for No. 6 fuel oil

The total amount of No. 6 fuel oil burned per month shall not exceed 56,633 gallons per month.

Month: _____ **Year:** _____

Month	Sulfur Content (%)	Heat Content (Btu/gallon)	No. 6 Fuel usage (gal/month)

No deviation occurred in this month.

Deviation/s occurred in this month.
Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003
Facility: Asphalt Based Paint Dipping Operation
Parameter: VOC
Limit: total VOC usage limited to 4.45 tons per month

Month: _____ Year: _____

Month	VOC Usage (tons/month)

No deviation occurred in this month.

Deviation/s occurred in this month.
Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: The Ford Meter Box Company, Inc.
Source Address: 773 Manchester Avenue, Wabash, Indiana 46992
FESOP No.: F169-5469-00003
Facility: source wide emissions
Parameter: hazardous air pollutants (HAPs)
Limit: total usage of 0.75 tons per month for single HAP

Month: _____ Year: _____

Month	Highest Single HAP (tons/month)

No deviation occurred in this month.

Deviation/s occurred in this month.
Deviation has been reported on: _____

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

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	The Ford Meter Box Company, Inc.
Source Location:	775 Manchester Avenue, Wabash, Indiana 46992
County:	Wabash
SIC Code:	3366, 3494, 3053
Operation Permit No.:	SPR-169-18446-00003
Permit Reviewer:	Alic Bent/EVP

On May 19, 2004, the Office of Air Quality (OAQ) had a notice published in the Wabash Plain Dealer, Wabash, Indiana, stating that The Ford Meter Box Company, Inc. had applied for a Significant Permit Revision to their brass captive foundry. The notice also stated that OAQ proposed to issue a Significant Permit Revision for this operation and provided information on how the public could review the proposed Significant Permit Revision 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 Significant Permit Revision should be issued as proposed.

On June 21, 2004, John Flesher submitted comments on behalf of The Ford Meter Box Company, Inc. on the proposed Significant Permit Revision. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted):

Comment 1

The Public Notice indicates that the PM, PM10 and Lead will increase by 1,185.09, 628.34 and 31.78 tons per year respectively. This volume is the maximum potential-to-emit; not the requested increase. The increase requested for the PM, PM10 and Lead was for only a fraction of the volume listed in the Public Notice.

Response 1

The PM, PM10 and Lead allowable emissions requested by the source were incorporated into the source-wide FESOP limits. Based on the Public Notice letter source-wide FESOP limits for PM, PM10 and Lead are less than 250, less than 100 and less than 10 tons per year, respectively.

Comment 2

The Indiana Department of Environmental Management (IDEM) is not authorized to modify Ford Meter Box federally enforceable state operating permit beyond the modification requested by Ford Meter Box and approved by IDEM in the interim approval, I-169-18446-00003 within the scope of the first significant revision. However, the First Significant Permit Revision appears to be proposing numerous other modifications to Ford Meter Box FESOP. No cause exists for these changes and they are not permitted under either Ind. Code 13-15-7-1 or 326 IAC 2-8-8; further more, even if cause existed, which it does not, IDEM failed to follow the procedural requirements in 326 IAC 2-8-8 for modifications initiated by IDEM.

The First Significant Revision to FESOP 169-5469-00003, can only address the modifications requested by Ford Meter Box and approved by IDEM's Interim Approval. The First Significant Revision should be revised to reflect the modifications requested by Ford Meter Box as are set out on pages 10 of 15 through 15 of 15 in The Technical Support Document for The Significant Permit Revisions to this Federally Enforceable State Operating Permit.

Response 2

Aside from the changes requested by the source with this revision the only other change made to FESOP #169-5469-00003 was the office name change from “Office of Air Management” to “Office of Air Quality” on the cover page.

This permit revision includes the January 27, 2004 modification request and all of the previously approved revisions that have been made to the permit. The source was under the impression that the January 27, 2004 modification request would be made to the pending FESOP Renewal, which contains several changes requested by the source for which the requests are still under IDEM’s review. Since the FESOP Renewal is not yet issued all revisions must be made to the issued FESOP 169-5469-00003. Therefore, there are no changes to The First Significant Revision as a result of this comment.

Comment 3

This facility has also been working with IDEM since 1997 to get changes made in the FESOP that Ford Meter Box was issued 12/13/96. It appears that the model changes faster than IDEM can issue a permit change; so those changes although having been addressed through several permit drafts have never been issued as a final permit document before IDEM staff felt it necessary to rewrite the FESOP to insert the latest model language.

This facility was told the Public Notice was to cover the permit modification requested in January of 2004 by The Ford Meter Box Co. to install additional equipment. Our initial document may have been somewhat confusing, as we submitted information covering not only the construction modification, but information on compliance limits that were still pending in the latest draft version of the 1996 FESOP.

In the case of previous permit modifications for this facility IDEM simply modified those portions of the permit subject to the requested changes. IDEM, however, attached a FESOP draft that contains considerable language that IDEM permit writers have previously agreed to change or remove from the permit.

Response 3

Ford Meter Box petitioned for a review of the FESOP on December 13, 1996. This petition was filed in the Office of Environmental Adjudication under Cause Number 96-A-1689. Ford Meter Box submitted additional information on March 11, 1997, further identifying the specific issues relating to the FESOP that they had requested to be revised. The issues included the removal of stack testing requirements in Conditions C.6 and D.3.4. Ford Meter Box also requested the Preventive Inspections as required by Conditions D.3.7 and D.4.6 be removed and a correction of a typographical error with Condition D.2.1. The revisions to the FESOP pursuant to the Appeal Resolution and all other model updates will be incorporated into the pending FESOP Renewal. This Significant Permit Revision deals with only the source's January 27, 2004 requests. Therefore, there are no changes to the permit as a result of this comment.

Comment 4

Item A.2 (U) should read as follows:

Unit #23 consisting of six (6) 5-Ton each electric channel induction furnaces each with a 1.25 ton per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the last two cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points, controlled by nine (9) baghouse modules known as "UU" with a common inlet but nine (9) individual stack discharges.
This is more descriptive language of the equipment actually installed at this facility to alert IDEM permit writers of the difficulty of performing a stack test.

Section D.3:

Change (u) to: Unit #23 consisting of six (6) 5-ton each electric channel induction furnaces each with a 1.25 ton per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the last two cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points, controlled by nine (9) baghouse modules known as "UU" with a common inlet but nine (9) individual stack discharges.

More detail has been added to describe this emission control unit than was included in the original permit description. This is to try to help IDEM understand just how complicated it will be to establish approved stack testing for this emission control unit.

Response 4

The descriptive information for Unit #23 has been revised as follows:

(u) unit #23, ~~controlled by Baghouse "UU",~~ consisting of six (6) 5-ton each electric channel induction furnaces each with a 1.25 tons per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the ~~last two~~ **box induction furnace and the crucible induction furnace** cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points**, controlled by nine (9) baghouse modules known as "UU" with a common inlet but nine (9) individual stack discharges**.

Comment 5

Section C.6 Performance Testing

Section C.6 Performance Testing has been removed from the previous versions of this FESOP drafted by IDEM since the Stay of Effectiveness was issued in 1997. The main disagreement with this permit requirement is associated with the sizable economic stress that would be placed on this facility to provide the test data by the required methods specified by the approved test protocols that IDEM will deem necessary to show compliance to the discharge limits. At this time, this facility does not believe that it is physically possible to adapt an approved test protocol to the existing discharge stack systems and that if a test stack could be devised that IDEM would surely also require that all nine (9) stacks would need to be adapted and tested simultaneously. Testing is not reasonable, physically or economically. It is the opinion of this facility that it can present several facts to show compliance with discharge limits without using the costly approved test protocol required by IDEM. This facility has kept records on the capture volume of the fume ventilation system and in 2003 the captured volume was 39,818 pounds. With the compliance limit set at about 31,000 pound per year, this facility can almost meet the limit without the use of an emission control unit. There is no reason for this facility to spend thousands of dollars to prove that the emission control equipment has at least a 25% capture efficiency.

Simple chemical concentration tests were made on the emissions and collections from this baghouse unit to determine actual emissions. Multipliers were then used to determine the potential-to-emit. Since actual annual emissions are only a fraction of the compliance limit, it is difficult to understand why IDEM feels it necessary for the facility to expend such large sums of money to prove it.

The Ford Meter Box fume control baghouse modules consist of (9) independent discharge units with their own unique cleaning system. The pressure drop across the collectors are connected to an automatic cleaning system that cleans each module in sequence once the pressure drop across the filter bags exceeds the set point. The shaker type baghouse unit cleans the filter bags for only about 5 seconds; therefore the filter cake on the bag is maintained to filter the new fume particulate from the air stream. This cleaning method increases filtering efficiency and thus reduces the emission volume to the environment. The filtering or cleaning is done by the collected fume, not the filter bag media itself.

This baghouse unit has a cleaning cycle counter that when used to track the cleaning cycle frequency, can be used as a tool to watch for practically undetectable changes in the baghouse filters. A change in the number of cleaning cycles recorded per day would detect an ever so slight change in the condition of the filter bags within the emission control unit. Such recordings can detect the early stages of filter failure days, weeks or even months before visual observations would detect a failure. The actual throughput volume of baghouse modules "UU" is so low that there would need to be an almost total failure of all of the filters in the system before a visual emission notation would be observed. The loading rate of the fume is about 1.4 x 10^{-6} pound per cubic foot of air. The cleaning cycle notation will detect partial baghouse filter failure when a visual notation will not. This facility is offering an alternative to IDEM permit writers to use a “technology" that will detect early stage baghouse failure when a visual inspection will not. In return for this effort the facility is asking IDEM to allow the facility to substitute (1) frequency observation per day for (1) visual notation per day. That would be (1) frequency and (1) visual notation per day for our (2) shift per day foundry operation.

Response 5

Section C.6 Performance Testing has not been removed from any issued permits drafted by IDEM since the Stay of Effectiveness was issued in 1997. IDEM acknowledges that a request was made by the Permittee to have this condition revised to remove stack testing on Baghouse “UU”, however, the request is still under review and will be incorporated into the pending FESOP Renewal for this source. Based on the pending FESOP Renewal the requirements for stack testing on Baghouse “UU” will be removed, but this will not become effective until the FESOP Renewal 169-14030-00003 has been issued.

Comment 6

Section C.10 Broken Bag (leak) Detector Specifications:

Remove the words "initially started" from this section of the permit.

Why does the permit require that starting the baghouse must trigger an alarm? The alarms are not triggered at this facility when the system starts. The broken bag detector controls many of the baghouse fans at this facility therefore, an alarm shuts down the process.

If the system was to work as the permit depicts, these baghouse fans could not operate, as they would be shut down immediately after they were started. This facility assumed that IDEM would totally agree with a system control concept that automatically shuts down the process system should a failure be detected.

Response 6

FESOP #169-5469-00003 contains some FESOP language, which was revised since it was issued 1997. These updates including the removal of the words "initially started" will be in the pending FESOP Renewal. This Significant Permit Revision deals with only the source's January 27, 2004 requests. Therefore, there are no changes to the permit as a result of this comment.

Comment 7

Section C.12 Actions Related to Noncompliance Demonstrated by a Stack Test:

The permit writer assumes that the only possible explanation for an exceedance of a compliance limit is that the emission control unit has failed. There is a possibility that the selected compliance limit was not appropriate for the emission control unit

Add the language "unless it should be shown that the compliance limit was not appropriate for the application."

Response 7

There may be instances where the submittal of an application for a permit revision may be an "appropriate corrective action". No changes were made to this condition as a result of this comment.

Comment 8

Section C.14 General Record Keeping Requirements:

(b) Replace the word "shall" with the word "should".

(c) Replace the word "shall" with the word "should".

The word "shall" implies that certain records must be kept even if such records don't exist.

Response 8

This condition is not a part of the modification request of January 27, 2004. Therefore, there will be no changes to the permit as a result of this comment.

Comment 9

Section D.1.5 Sulfur Dioxide Emissions and Sulfur Content:

After part (b) add "or"

As written, the permit implies that the supplier must sample each and every load of fuel delivered. This facility feels that supplier certification with appropriate sampling frequencies is adequate to show compliance with the use of low sulfur fuel. This facility never expects to need to use low sulfur fuel oil as long as natural gas is available. We suggest that the permit requirements should not be complicated with excessive testing requirements when periodic testing accompanied by supplier certification will suffice.

Response 9

The main goal in demonstrating compliance with a sulfur content limit is to show that the sulfur content of the fuel is less than the level specified in the permit. This can be done by one of two methods specified in the permit:

(a) Regular fuel sampling and analysis performed as specified in 326 IAC 3-3-4 and the permit, or

(b) Fuel supplier certifications.

Both of these methods require sampling and analysis, the difference being who does the sampling and analysis. Fuel suppliers, upon request, should be able to provide certified information as to the sulfur content of the fuel oil supplied to a source. Supplier terminals sample and record sulfur content of the incoming bulk loads after they are transferred to the storage tanks, but before these bulk loads are distributed further. These records can be referenced to determine the sulfur content of any fuel oil shipments drawn out of that storage tank subsequently. Therefore, given that the supplier samples every time new bulk loads are added to the terminal and the most recent sampling results can be tied to the outgoing shipments, certification of the actual sulfur content of fuel oil delivered can be given to the source receiving the shipments.

This condition, however, is not a part of the modification request of January 27, 2004. Therefore, there will be no changes to the permit as a result of this comment.

Comment 10

D.3.2 Particulate Matter Less than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.31	1.35
Unit #20	0.55	2.4
Unit #23	~~1.77~~ **3.54**	~~7.75~~ **15.52**

Compliance with these limits make 326 IAC 2-7 not applicable.

From the permit application, the controlled emissions of PM10 for emission Unit No. 23 was calculated to be 7.756 Ton/Yr and the lead emissions 0.497 Ton/Yr. By limiting PM10 emissions to 15.52 Ton/Yr and lead to 4.97 Ton/Yr the facility, if operated at maximum capacity of 8760 hours per year, would have a factor of safety of 2 for PM10 and 10 for lead for an hourly compliance limit.

The permit writer appears to have put the wrong compliance limits listed in this table. Page 12 of 15 of the Technical Support Document has a Table in Section D.3.2 listing the PM10 compliance limit at 15.52 Ton/Yr for Unit #23. To make the PTE PM10 limits add up to less than 100 Ton/Yr, the factor of safety on Unit #5 and Unit #26 will need to be lowered to 2. The respective compliance limits for PM10 would be 0.57 and 1.05 Ton/Yr for these two (2) units.

Pound per hour PM-10 emissions should be removed from the permit. The FESOP limits PM-10 emissions to 100 Ton per year. It does not retroactively limit emissions in pounds per hour.

Response 10

The short term limits are required for the facilities to make the emission limits practically enforceable and to ensure compliance with the entire source limit of 100 tons per year of PM10. If the short term limits are not in place, continuous monitoring by the source would be required to ensure compliance.

The PM-10 emissions limit for Unit #23 has been corrected. The PM-10 emission limits for Unit #5 and Unit #26 have been revised to ensure compliance with the entire source limit of 100 tons per year of PM-10:

D.3.2 Particulate Matter Less than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.31	1.35
Unit #20	0.55	2.4
Unit #23	~~1.77~~ **3.54**	~~7.75~~ **15.52**

D.4.2 Particulate Matter Less than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #5	~~0.32~~ **0.13**	~~1.40~~ **0.57**
Unit #26	~~0.57~~ **0.239**	~~2.52~~ **1.05**

Comment 11

Section D.3.3 Hazardous Air Pollutants (Lead):

Pound per hour lead emissions should be removed from the permit. The FESOP limits single HAP emissions to < 10 Ton per year. The FESOP should not limit hourly emissions.

Response 11

The short term limits are required for the facilities to make the emission limits practically enforceable and to ensure compliance with the entire source limit of less than 10 tons per year of Lead. If the short term limits are not in place, continuous monitoring by the source would be required to ensure compliance. No changes were made to this condition as a result of this comment.

Comment 12

Section D.3.7 Visible Emission Notations:

Visible emission notations "or cleaning frequency counter" of the baghouse exhaust stacks without broken bag detector shall be performed once per shift during normal daylight operations.

Baghouse "UU" should be checked once per day for visible emissions to satisfy IDEM and once per day for cleaning frequency to determine potential change in the condition of the baghouse filter media. This type of notation is unique and only applicable to how the nine (9) modules of bag house "UU" are operated. The loading on baghouse "UU" is metal fume and is so light in volume that it is doubtful that the normal partial failure of the filter media would reveal a detectable visible emission from the stacks. The observation of the cleaning frequency is a more sensitive test for baghouse failure than visible emission notation, so should be allowed as a partial substitution of visible emission notation.

Response 12

The “cleaning frequency counter” is not a condition in FESOP 169-5469-00003, therefore this cannot be addressed.

IDEM, OAQ recognizes that the FESOP for this source required that visible emissions notations be made on a daily basis. However, the increased monitoring frequencies of D.3.7 of this revision are not intended to improve the performance or reliability of the control equipment utilized by the Permittee, although such reliability is important in terms of meeting the requirements of this permit. Instead, the once per shift monitoring frequencies provide for continuous assurance that the Permittee complies with all relevant and applicable requirements. Control device failures can occur suddenly; therefore monitoring of relevant operational parameters should be more frequent than daily in such cases where a source operates more than one shift per day. The OAQ believes that changing the requisite compliance monitoring to once per operating shift is a reasonable requirement.

Comment 13

Section D.3.8 Preventive Inspections:

IDEM should not be allowed to specify how a facility should operate the emission control equipment and to place boiler plate daily, weekly and monthly parameters on a list for the facility to show documentation that the facility is paying attention to their emission control equipment. Previous drafts of the permit allowed the facility to choose appropriate parameters and frequencies to adequately show that emission control equipment is maintained. This facility attached a preventative maintenance plan to the original permit application for IDEM review.

With the use of broken bag detection there is no reason for short term repetitive inspections to assure that the emission control equipment is operating properly, as the detector is making that observation continuously and automatically. Technology is being used to replace the need for repetitive manual inspections.

Please see the following responses for several parameters listed for the preventative maintenance plan which have been placed into this permit as a must do inspection requirement:

(a) Baghouse inlet temperature and air flow rate.

There is no process at this facility where temperature has any impact on the emission control equipment. The inlet temperature of the baghouse unit would merely measure the ambient temperature of the facility (room temperature). The temperature could vary by 14-20 degrees from winter to summer. Temperature is not an acceptable or meaningful parameter to observe at this facility.

The air flow rate is dependent on the number of pieces of equipment that are being ventilated at the time the reading is taken and has nothing to do with whether or not the emission control devices at this facility are operating properly, This facility has tried to minimize the volume of air that is exhausted by shutting off certain vents when not in use. Reducing ventilation volume is a form of environmental conservation, as exhaust air within the facility must be replaced by heated make-up air that results in additional environmental emissions. Therefore, minimizing the exhaust volume to a rate as needed by the process makes it impossible to make any sense out of the result of recording the air flow rate. Air flow rate is not an acceptable inspection parameter

(b) Adequate dust removal from hoppers:

This facility does need to determine what is considered to be adequate dust removal from the baghouse hoppers, however, this should be a process and facility specific parameter, not a daily record parameter. We are not aware of any means to determine if a baghouse hopper needs to be emptied, except to remove such dust from the hopper.
There are fugitive emissions generated every time a baghouse dust hopper is emptied. Minimizing the frequency of the dust hopper emptying process will reduce overall fugitive emissions. The daily removal of dust from an emission control unit (shaker baghouse) increases fugitive emissions, therefore if the unit can wait for a longer period between dust removal cycles there would be fewer fugitive emissions. Ideally, you do not want to empty the dust hopper any more often than is absolutely necessary to keep the collected dust from interfering with the air flow volume In the case of baghouse "UU",
Unit #23, this facility has settled on a once a month “empty the holding hopper" schedule. A maintenance work order is automatically generated once per month by the maintenance software preventative maintenance program. Placing a daily permit requirement to empty dust from hoppers increases emissions when such a task is not necessary. The baghouse dust removal schedule does not belong in this permit. The baghouse emptying schedule should be left to the modification of the permit.

(c) Compressed Air Supply:

Compressed air is not a requirement for shaker baghouse units. This facility has a continuously monitored alarm system on the compressed air supply, therefore, placing a daily record keeping requirement such as this into the permit is not necessary and not even associated with the emission control units.

(d) Proper isolation damper operation:

This facility is not aware of any isolation dampers in the system that it is possible to check on. Why would a daily parameter check be placed into a permit when there is no such equipment to monitor?

(e) Monitoring of bag cleaning cycle:

This facility has asked that WEM allow such monitoring to be substituted for daily visual monitoring. The once per shift visual inspection notation would likely never observe a deviation from compliance at emission Unit #23 "UU". A cleaning cycle frequency observation should eliminate the need for visual inspections, however, this facility is willing to record one (1) visual notation per day to satisfy IDEM.

Weekly:

(a) Bag cleaning mechanisms:

The daily cleaning frequency notation would alert the facility of such a problem and therefore is not required as a weekly inspection parameter. The daily cleaning frequency should alert the facility of any mechanical problem by the 2nd day of such a failure.

(b) Condition of the ductwork.

It is not known what the condition of the ductwork has to do with emissions. Unit #23 for fume control is not abrasive, therefore, there is no reason to expect ductwork leaks to develop. Air leaks on the collection side of the baghouse fan do not emit pollutants to the environment. A weekly check of the condition of the ductwork is too often for this facility.

Monthly:

This facility has no problem with the items included in the monthly parameter list for inspections, but feels that inspections should be left to the discretion of the facility. The frequency of the monthly inspection could be stretched to a quarterly inspection and adequately protect the environment. The preventative maintenance inspection record should be a dynamic document that may easily change as needed by the facility. Such changes should not require a facility to apply for a permit modification to make minor changes as to how the system is operated.

Section D.4.7 Preventive Inspections:

Preventive maintenance inspections should be left to the facility to decide what is appropriate for each emission control unit. See the response given in Section D.3.8 for the same list of inspections. Preventive maintenance inspection parameters do not belong in the FESOP, as they are susceptible to change, especially as technology and processes change.

Response 13

This condition is not a part of the modification request of January 27, 2004. Therefore, there will be no changes to the permit as a result of this comment.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**The Ford Meter Box Company, Inc.**
Source Location:	**775 Manchester Avenue, Wabash, Indiana 46992**
County:	**Wabash**
SIC Code:	**3366, 3494, 3053**
Operation Permit No.:	**F169-5469-00003**
Operation Permit Issuance Date:	**December 13, 1996**
Significant Permit Revision No.:	**169-18446-00003**
Permit Reviewer:	**Alic Bent/EVP**

The Office of Air Quality (OAQ) has reviewed a revision application from The Ford Meter Box Company, Inc. relating to modifications to captive brass foundry.

History

On January 27, 2004, Ford Meter Box Company submitted an application to the OAQ requesting the following changes to their existing plant:

(a) Installation of one (1) additional electric channel induction melt furnace, with a 1.25 tons of brass per hour melt capacity to Unit #23. The proposed furnace is identical to the five (5) existing induction furnaces identified as Unit #23 and will be controlled by the existing baghouse identified as “UU”. Baghouse “UU” will be physically modified to accommodate the particulate emissions from the additional furnace.

(b) Installation of one (1) shot blast cleaner with its corresponding baghouse for particulate control. This will replace an existing cleaner and its baghouse.

(c) Addition of one (1) automated molding machine (Sinto 4) to replace the existing hand molding operations and replacing the cyclones on the molding line (Units #6, #7, Unit #9 and Unit #20) with larger, more efficient baghouses.

(d) Physically modify the existing sand handling system by replacing the motor to increase the sand capacity. A baghouse will replace the existing cyclone that controls the particulate emissions from the sand handling system.

(e) Installation of one (1) New Abrasive Cut-off Saw as a part of Unit #15.

Secondly, the source stated that the maximum melt capacity listed in their current FESOP was incorrect. Since 1996, the source realized that the furnaces became more efficient and can melt at higher capacities for shorter period of times than was originally specified. Therefore, the source is requesting that the melt capacity be corrected from 1.0 ton per hour per furnace to 1.25 ton per hour per furnace.

Thirdly, the source also requested administrative changes to the facility description in Section A of the permit.

Ford Meter Box Company was issued a FESOP (F169-5469-00003) on December 13, 1996.

Special Issue – Increased Utilization of Existing Processes

The addition of the new furnace and the correction to the melt capacity of the five (5) existing furnaces will increase the maximum melt capacity of Unit #23 from 43,800 tons per year to 71,788 tons per year. The increase in foundry melt capacity will result in increased utilization of existing operations, however PSD requirements do not apply because the source is maintaining its FESOP status.

Existing Approvals

The source was issued a FESOP 169-5469-00003 on December 13, 1996. The source has since received the following:

(a) First Administrative Amendment 169-10615-00003, issued on March 8, 1999;

(b) Second Administrative Amendment 169-11779-00003, issued February 10, 2000; and

(c) Third Administrative Amendment 169-13843-00003, issued April 6, 2001.

The source applied for a FESOP Renewal on March 6, 2001.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision 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 January 27, 2004.

Emission Calculations

See Appendix A: pages 1 through 5 of this document for detailed emissions calculations.

Potential To Emit of the Revision Before Controls

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

Pollutant	Potential To Emit (tons/year)
PM	1,185.09
PM-10	628.34
SO_2	0.00
VOC	0.01
CO	0.59
NO_x	0.16

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

HAP's	Potential To Emit (tons/year)
Lead	greater than 10
TOTAL	greater than 25

Note: These emissions only represent emissions from an increase in plant melt capacity from 43,800 tons per year to 71,788 tons per year.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM-10 are equal to or greater than 25 tons per year. Therefore, the FESOP is being revised through a Significant Permit Revision pursuant to 326 IAC 2-8-11.1.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the FESOP is being revised through a Significant Permit Revision pursuant to 326 IAC 2-8-11.1.

(c) Fugitive Emissions
Even though secondary metal processing is considered one of the twenty-eight (28) listed source categories, based on the U.S. EPA memorandum dated December 4, 1998, this source is not one of the listed source categories because the plant processes only alloy specific ingots, using no scrap metal. Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit of the Source including the Revision

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	Total HAPs
Boilers (Units #1 & #2)	6.09	5.63	85.36	0.14	1.82	18.69	0.00	0.014
Paint Dipping Operations (Units #3 & #4)	--	--	--	82.16	--	--	< 10.0	10.69
Teflon Spray Coating Booth (Unit #21)	3.26	3.26	--	11.95	--	--	--	--
Nut Coating Operation (Unit #27)	--	--	--	2.58	--	--	--	--
Molding Line (Units #6, #7 & #9)	2.80 (1)	1.35 (2)	--	--	--	--	0.022 (2)	0.022
Sinto Molding Line (Unit # 20)	1.18 (1)	2.4 (2)	--	--	--	--	0.009 (2)	0.009
Sand Treatment and Brass Reclaim (Unit #13)	5.82 (1)	5.83 (2)	--	--	--	--	0.036 (2)	0.036
Iron Room (Unit #5)	9.34 (1)	1.40 (2)	--	--	--	--	0.05 (2)	0.05
12 GN Finish Cleaner (Unit #11)	3.84 (1)	2.24 (2)	--	--	--	--	0.034 (2)	0.034
6 GN Finish Cleaner (Unit #12)	1.92 (1)	1.12 (2)	--	--	--	--	0.017 (2)	0.017
Continuous Cleaner (Unit #14)	21.1 (1)	12.32 (2)	--	--	--	--	0.19 (2)	0.19
Grinding and Cut-off (Unit #15)	21.1 (1)	4.24 (2)	--	--	--	--	0.87 (2)	0.87
Machining/Sanding (Unit #16)	0.83 (1)	0.91 (2)	--	--	--	--	0.031 (2)	0.031
Machining (Unit #17)	2.38 (1)	2.62 (2)	--	--	--	--	0.087 (2)	0.087
Tool Grinding (Unit #18)	0.96 (1)	1.06 (2)	--	--	--	--	0.035 (2)	0.035
Coreroom Vent (Unit #19)	70.2 (1)	23.39 (2)	Negl.	1.495	0.6	0.71	1.455	1.455
Induction Furnaces (Unit #23)	7.75 (1)	7.75 (2)	--	--	--	--	4.47 (2)	4.47
Machining (Unit #26)	2.29 (1)	2.52 (2)	--	--	--	--	0.167 (2)	0.167
Insignificant Activities	49.05 (1)	16.37 (2)	13.64	0.6	1.86	10.35	Negl.	Negl.
Total Emissions	209.91	94.41	99.0	98.92	4.28	29.75	< 10	18.40

(1) PM limits to comply with 326 IAC 2-2.
(2) PM-10 and Lead Limits to comply with 326 IAC 2-8-4.

County Attainment Status

The source is located in Wabash County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wabash County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

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

This modification is not subject to the requirements of this rule. The existing source was an existing minor PSD source. As shown in the Potential to Emit of the Source including the Revision table on page 4 above, the allowable emissions of all regulated pollutants, except PM, are less than 100 tons per year after application of all federally enforceable emission limits. The allowable emissions of PM are less than 250 tons per year after application of all federally enforceable emission limits. Therefore the requirements of 326 IAC 2-2 (PSD) do not apply. This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

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

The lead emissions from the source are controlled to less than 10 tons per year. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an emission statement. This source, which is located in Wabash County, has accepted federally enforceable operation conditions which limit emissions of PM-10 to below 100 tons per year per pollutant, therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the following limits apply:

(a) Lead emissions shall be limited as follows:

Facilities	Lead Emissions (lb/hr)	Lead Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.005	0.022
Unit #20	0.002	0.009
Unit #13	0.009	0.036
Unit #5	0.001	0.045
Unit# 11	0.0078	0.034
Unit #12	0.0039	0.017
Unit #14	0.043	0.19
Unit# 15	0.20	0.87
Unit #16	0.071	0.031
Unit #17	0.02	0.087
Unit #18	0.008	0.035
Unit #26	0.038	0.167
Unit #23	1.02	4.47
Insignificant Activities	0.035	0.15

Compliance with these limits make 326 IAC 2-7 not applicable.

(b) The PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #1 and Unit #2 (each)	1.285	5.63
Unit #6, Unit #7 and Unit #9 (total)	0.31	1.35
Unit #20	0.55	2.4
Unit #13	1.33	5.83
Unit #5	0.32	1.40
Unit# 11	0.51	2.24
Unit #12	0.256	1.12
Unit #14	2.81	12.32
Unit# 15	0.97	4.24
Unit #16	0.21	0.91

Unit #17	0.60	2.62
Unit #18	0.24	1.06
Unit #19	5.34	23.39
Unit #26	0.57	2.52
Unit #23	1.77	7.75
Insignificant Activities	3.74	16.37

Compliance with these limits make 326 IAC 2-7 not applicable.

326 IAC 5-1 (Opacity Limitations)

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

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

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

State Rule Applicability - Individual Facilities

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

Pursuant to 326 IAC 6-3-2 the particulate shall be limited by the following:

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

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

and

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

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

Facilities	Process Weight Rate (tons/hr)	326 iAC 6-3-2 PM Allowable Emissions (lb/hr)	Compliance Calculations (lb/hr)
Molding Line: Unit #6, Unit #7 and Unit #9	50	44.6	0.64
Unit #20	45	43.6	0.27
Unit #13	15.0	25.16	1.33
Unit #5	0.78	3.47	2.13
Unit# 11	2.73	8.04	0.88
Unit #12	1.37	5.06	0.44
Unit #14	8.195	16.78	4.82
Unit# 15	8.195	16.78	4.81
Unit #16	0.78	3.47	0.19
Unit #17	2.23	7.02	0.54
Unit #18	0.90	3.82	0.22
Unit #19	8.0	16.51	16.02
Unit #26	4.28	10.86	0.52
Unit #23	8.195	16.78	1.77
Insignificant Activities	--	--	11.20

These facilities are in compliance with these PM allowable emissions, since their emissions after control are less than the PM allowable emissions.

The baghouses shall be in operation at all times the units are in operation, in order to comply with the above limits.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. Unit #7, Unit #9, Unit #11 - Unit #18, Unit #20, Unit #23 and Unit #26 have applicable compliance monitoring conditions as specified below:

   (a) Visible emissions notations of baghouse stack exhausts without broken bag detector, shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal.

   (b) For the baghouses equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction. The instrument used for leak detection shall meet the specification of Condition C.10 and be maintained according to Condition C.8. The detector shall also be subject to approval by IDEM, OAQ.

   (c) An inspection shall be performed each calender quarter of all bags controlling Unit #5, Unit #6, Unit #7, Unit #9, Unit #11 - Unit #18, Unit #20, Unit #23 and Unit #26. All defective bags shall be replaced.

   (d) In the event that bag failure has been observed:

      (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

      (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses for the units must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP).

Changes Proposed

The following changes are made as the Significant Permit Revision to FESOP No. 169-5469-00003. (New is shown in bold and deleted language is shown with a line through it):

Note: FESOP #169-5469-00003 is not the current FESOP model. There have been several model updates. Aside from the changes associated with this revision the only other changes to the FESOP will be the office name change from "Office of Air Management" to "Office of Air Quality" on the cover page. All other model updates will be reflected in this pending FESOP renewal.

1. Section A.1 has been revised to correctly state the responsible official.

   A.1 General Information
   The Permittee owns and operates a brass captive foundry.

   Responsible Official: ~~John Flesher~~ **Senior Vice President**

2. The descriptive information in Section A.2 and D.1, D.2, D.3 and D.4 of FESOP 169-5469-00003 has been revised as follows. The previous Unit #7 is now identified as Unit #5. The previous Unit #22 and Unit #23 were combined as one Unit #23.

   (a) two (2) natural gas fired boilers (Units #1 and #2) with a maximum heat input of 12.5 million British thermal Units per hour, using No. 2 and No. 6 fuel oils as back-up fuels, with Unit #1 ~~exhausting at Stack "A"~~ and Unit #2 exhausting at Stack "~~B~~ **A**";
   (b) one (1) water based paint dipping operation (Unit #3) **for coating iron castings, installed in 1973,** with a maximum coating rate of 7 baskets per hour **exhausting at Stack "F"**;
   (c) one (1) black asphalt based paint dipping operation (Unit #4) **for coating iron castings, installed in 1973,** with a maximum coating rate of 7 baskets per hour **exhausting at Stack "F"**;
   (d) one (1) Binks Teflon spray coating booth (Unit #~~5~~**21**)**, installed in 1980,** using an automatic air atomization application method for coating brass balls and air filters for overspray control **exhausting at Stack "OO"**;
   (e) one (1) nut coating operating (Unit #~~6~~**27**)**, installed in 1996,** utilizing a spin coating application system;
   ~~(f) one (1) Iron Room (Unit #7) for cast iron grinding, boring and tapping operations, including three (3) small bench grinders for brass equipped with a dropout box for particulate collection. Particulate emissions for all operations conducted in the room are controlled by a baghouse identified as Baghouse "G";~~
   (~~g~~**f**) the No. 1 Handline Molding Line sand system (Unit #~~8~~**6**) equipped with a ~~cyclone~~ **baghouse** which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "H";
   (~~h~~**g**) the Harrison's Molding Line **and Sinto #4 Molding Line** sand system (Unit #~~9~~**7**) equipped with a ~~cyclone~~ **baghouse** which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "H";
   (~~i~~**h**) the No. 1 Handline Shakeout Conveyor sand system (Unit #~~10~~**9**) equipped with a ~~cyclone~~ **baghouse** which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "~~I~~**H**";
   ~~(j) the No. 2 Handline Shakeout Conveyor sand system (Unit #11) equipped with a cyclone which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "O";~~
   (~~k~~**i**) the **Sinto Nos. 1, 2 and 3** ~~No. 2 Handline~~ Molding Line sand system (Unit #~~12~~**20**)**, with a maximum throughput of 45 tons per hour,** ventilated to a ~~cyclone~~ **baghouse** which returns the captured sand particulate back to the system, exhausting at one (1) stack identified as Stack "KK";
   (~~n~~**j**) the sand treatment and brass reclaim operations (Unit #~~15~~**13**), **with a maximum throughput of 15 tons per hour,** controlled by a baghouse identified as Baghouse "T";

(k) **one (1) Iron Room (Unit #5) for cast iron grinding, boring and tapping operations, with a maximum throughput of 0.78 tons per hour. Particulate emissions for all operations conducted in the room are controlled by a baghouse identified as Baghouse "G";**

(l) one (1) Pangborn 12GN steel shot blast cleaner (Unit #~~13~~**11**)**, with a maximum throughput of 2.73 tons per hour,** ventilated to a baghouse identified as Baghouse "Q" for particulate emissions control;

(m) one (1) Pangborn 6GN steel shot blast cleaner (Unit #~~14~~**12**)**, with a maximum throughput of 1.37 tons per hour,** ventilated to a baghouse identified as Baghouse "S" for particulate emissions control;

(n) **one (1) continuous flow steel shot blast cleaner (Unit #14) for removing sand and internal cores from the casting, with a maximum throughput of 8.195 tons per hour, ventilated to a baghouse identified as Baghouse "U" for particulate emissions control;**

~~(o) one (1) Pangborn ES-1412 continuous flow steel shot blast cleaner (Unit #16) for removing sand and internal cores from the casting, ventilated to a baghouse identified as Baghouse "U" for particulate emissions control;~~

(~~p~~**o**) foundry grinding and cut-off operations (Unit #~~17~~**15**)**, with a maximum throughput of 8.195 tons per hour,** with emissions controlled by a baghouse identified as Baghouse "V";

(~~q~~**p**) various machining, grinding, and polishing operations (Unit #~~18~~**16**)**, with a maximum throughput of 0.78 tons per hour,** ventilated to a baghouse identified as Baghouse "W" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;

(~~r~~**q**) various machining, grinding, and polishing operations (Unit #~~19~~**17**)**, with a maximum throughput of 2.23 tons per hour,** ventilated to a baghouse identified as Baghouse "X" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse;

(~~s~~**r**) various machining, grinding, and polishing operations (Unit #~~20~~**18**)**, with a maximum throughput of 0.90 tons per hour,** ventilated to a baghouse identified as Baghouse "Y" for capturing ~~brass~~ **metal particulate** ~~chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse~~;

(~~t~~**s**) the coreroom ventilation (Unit #~~21~~**19**)**, with a maximum throughput of 8.0 tons per hour,** including ventilation of ~~eleven (11)~~ **twelve (12)** natural gas fired core making units with a total maximum heat capacity of ~~1.253~~ **1.624** million British thermal Units per hour;

~~(u) metallic fume from eight (8) melting furnaces (Unit #22) with exhausts routed through an eight (8) module baghouse identified as Baghouse "UU";~~

~~(v) one (1) 250 KW electric coreless induction box furnace (Unit #23) with emissions also controlled by Baghouse "UU"; and~~

(~~w~~**t**) various machining, grinding, and polishing operations (Unit #~~24~~**26**)**, with a maximum throughput of 4.28 tons per hour,** ventilated to a baghouse identified as Baghouse "BC" for capturing brass chips to be recycled as well as controlling the dust emissions. The exhaust gas is vented through a drop box to reduce particulate loading and then to the baghouse~~.~~**; and**

(u) **unit #23, controlled by Baghouse "UU", consisting of six (6) 5-ton each electric channel induction furnaces each with a 1.25 tons per hour melt capacity, one (1) box induction furnace with a 0.695 ton per hour melt capacity, one (1) crucible induction furnace with a 0.53 ton per hour melt capacity, (due to power supply limitations the last two cannot operate simultaneously) metallic fume emissions from melting and pouring include transfer points.**

3. The PM allowable emissions were adjusted to account for the increase in the melting capacity.

D.3.1 Particulate Matter **[326 IAC 2-2] [326 IAC 6-3-2]**
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities covered in Section D.3 are as follows:

~~(a) Cyclone "H": 10.8 pounds per hour;~~
~~(b) Cyclone "I": 2.51pounds per hour;~~
~~(c) Cyclone "O": 2.0 pounds per hour;~~
~~(d) Cyclone "KK": 4.6 pounds per hour; and~~
~~(e) Baghouse "UU" 15.2 pounds per hour.~~

Facilities	Process Weight Rate (ton/hr)	326 IAC 6-3-2 PM Allowable Emissions (lb/hr)	PM Compliance Calculations (lb/hr)
Unit #6, Unit #7 and Unit #9 (total)	**50**	**44.6**	**0.64**
Unit #20	**45**	**43.6**	**0.27**
Unit #23	**8.195**	**16.78**	**1.77**

Compliance with these limits make 326 IAC 2-2 not applicable.

4. The PM-10 allowable limits were added to the permit to ensure compliance with the FESOP limit of less than 100 tons per year.

D.3.2 Particulate Matter Less Than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	**0.31**	**1.35**
Unit #20	**0.55**	**2.4**
Unit #23	**3.54**	**15.52**

Compliance with these limits make 326 IAC 2-7 not applicable.

~~D.3.2 Hazardous Air Pollutants~~
~~The hazardous air pollutant emissions shall be limited such that source wide single hazardous air pollutant (HAP) emissions shall not exceed 0.75 tons per month. Therefore, the requirements of 326 IAC 2-7 do not apply.~~

5. The Lead allowable limits were added to the permit to ensure compliance with the FESOP limit of less than 10 tons per year for single HAPs.

D.3.3 Hazardous Air Pollutants (Lead) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the Lead emissions shall be limited as follows:

Facilities	Lead Emissions (lb/hr)	Lead Emissions (tons/yr)
Unit #6, Unit #7 and Unit #9 (total)	0.005	0.022
Unit #20	0.002	0.009
Unit #23	1.02	4.47

Compliance with these limits make 326 IAC 2-7 not applicable.

6. The PM allowable emissions were adjusted to account for the increase in the melting capacity.

D.4.1 Particulate Matter **[326 IAC 2-2] [326 IAC 6-3-2]**
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities covered in Section D.4 are as follows:

~~(a) Baghouse "G": 12.1 pounds per hour;~~
~~(b) Baghouse "Q": 12.1 pounds per hour;~~

~~(c) Baghouse "S": 12.1 pounds per hour;~~
~~(d) Baghouse "T": 12.1 pounds per hour;~~
~~(e) Baghouse "U": 12.1 pounds per hour;~~
~~(f) Baghouse "V": 12.1 pounds per hour;~~
~~(g) Baghouse "W": 12.1 pounds per hour;~~
~~(h) Baghouse "X": 12.1 pounds per hour;~~
~~(i) Baghouse "Y": 12.1 pounds per hour;~~
~~(j) Vent #21: 12.1 pounds per hour; and~~
~~(k) Baghouse "SS": 12.1 pounds per hour.~~

Facilities	Process Weight Rate (ton/hr)	326 IAC 6-3-2 PM Allowable Emissions (lb/hr)	PM Compliance Calculations (lb/hr)
Unit #5	0.78	3.47	2.13
Unit# 11	2.73	8.04	0.88
Unit #12	1.37	5.06	0.44
Unit #13	15.0	25.16	1.33
Unit #14	8.195	16.78	4.82
Unit# 15	8.195	16.78	4.81
Unit #16	0.78	3.47	0.19
Unit #17	2.23	7.02	0.54
Unit #18	0.90	3.82	0.22
Unit #19	8.0	16.51	16.02
Unit #26	4.28	10.86	0.52

Compliance with these limits make 326 IAC 2-2 not applicable.

7. The PM-10 allowable emissions were added to the permit to ensure compliance with the FESOP limit of less than 100 tons per year.

D.4.2 Particulate Matter Less Than Ten (10) Microns (PM-10) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the PM-10 emissions shall be limited as follows:

Facilities	PM -10 Emissions (lb/hr)	PM-10 Emissions (tons/yr)
Unit #5	0.32	1.40
Unit# 11	0.51	2.24
Unit #12	0.256	1.12
Unit #13	1.33	5.83
Unit #14	2.81	12.32
Unit# 15	0.97	4.24
Unit #16	0.21	0.91
Unit #17	0.60	2.62
Unit #18	0.24	1.06
Unit #19	5.34	23.39
Unit #26	0.57	2.52

Compliance with these limits make 326 IAC 2-7 not applicable.

~~D.4.2 Hazardous Air Pollutants~~
~~The hazardous air pollutant emissions shall be limited such that source wide single hazardous air pollutant (HAP) emissions shall not exceed 0.75 tons per month. Therefore, the requirements of 326 IAC 2-7 do not apply.~~

8. The Lead allowable limits were added to the permit to ensure compliance with the FESOP limit of less than 10 tons per year for single HAPs.

D.4.3 Hazardous Air Pollutants (Lead) [326 IAC 2-8-4]
Pursuant to 326 IAC 2-8-4 the Lead emissions shall be limited as follows:

Facilities	Lead Emissions (lb/hr)	Lead Emissions (tons/yr)
Unit #5	0.011	0.045
Unit# 11	0.0078	0.034
Unit #12	0.0039	0.017
Unit #13	0.009	0.036
Unit #14	0.043	0.19
Unit# 15	0.20	0.87
Unit #16	0.0071	0.031

Unit #17	**0.02**	**0.087**
Unit #18	**0.008**	**0.035**
Unit #26	**0.038**	**0.167**

Compliance with these limits make 326 IAC 2-7 not applicable.

9. Conditions D.3.6 and D.4.5 – Broken Bag Detectors have been revised to remove the cyclones, since the cyclones have been replaced by baghouses.

D.3.6 Broken Bag Detectors
D.4.5 Broken Bag Detectors
For the ~~cyclones and~~ baghouses equipped with a continuous broken bag (leak) detector at the exhaust stack, the detector shall be used for detecting the potential control device malfunction. The instrument used for leak detection shall meet the specification of Condition C.10 and be maintained according to Condition C.8. The detector shall also be subject to approval by IDEM, OA~~M~~**Q**.

10. Conditions D.3.7 and D.4.6 – Visible Emission Notations have been revised to remove the cyclones since the cyclones have been replaced by baghouses. The monitoring frequency has been changed from daily to once per shift to reflect the current IDEM, OAQ requirement.

D.3.7 ~~Daily~~ Visible Emission Notations
D.4.6 ~~Daily~~ Visible Emission Notations
~~Daily~~ **V**~~v~~isible emission notations of the ~~cyclone and~~ baghouse exhaust stacks without broken bag detector shall be performed **once per shift** during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation specified condition prescribing visible emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Conclusion

The operation of this captive brass foundry shall be subject to the conditions of the attached proposed Significant Permit Revision No. 169-18446-00003.

Company Name: **The Ford Meter Box Company, Inc.**
Address City IN Zip: **775 Manchester Avenue, Wabash, IN 46992**
Significant Permit Revision: **169-18446**
Plt ID: **169-00003**
Reviewer: **Alic Bent/EVP**
Date: **11-Mar-04**

a. Emission Unit #5 (Iron Room operations controlled by Baghouse "G")

Based on iron collection rate by baghouse (98% efficiency) of 232 lb/week on 8 hr/day, 5 days/wk & 51 wk/yr for 60% of work station. Applicant also indicated: PM10 = 30% PM; three grinder for brass (contain 5% lead) equipped with 90% efficiency dropout and exhaust vented through baghouse collected 1000 lb/yr of brass dust.

Potential: PM emissions (ton/yr) = 232 lb/work wk * (8760/51*5*8) (hr/yr)/(hr/work wk) * (1/60%) / 98% * (1/2000) ton/lb
+ 1000 lb/yr * (1/2000) tons/lb / (1 - 90%) * (8760/51*5*8) (hr/yr)/(work hr /yr) / 60%
= 43.2 ton/yr + 3.98 ton/yr
= 47.18 ton/yr

Potential PM-10 emissions (ton/yr) = 30% * 47.18 ton/yr = 14.15 tons/yr
Potential HAP (Pb) emissions (ton/yr) = 5% * 3.98 ton/yr = 0.20 ton/yr

Controlled: PM emissions (ton/yr) = (1-98%) * 47.18 ton/yr = 0.9436 ton/yr
PM-10 emissions (ton/yr) = 30% * 0.935 ton/yr = 0.2831 ton/yr
HAP (Pb) emissions (ton/yr) = (1-98%) * 0.20 ton/yr = 0.004 ton/yr

b. Emission Units #6, #7, #9 and #20 (Molding lines with Baghouses)

Replacing cyclone with baghouses on Units #6 - #9 and Unit #20.

Emissions from these molding lines are due to sand handling and shakeout with emissions distributed as follows:
#6 (No. 1 Handline) : 30%; #7 (Harrison's) : 30%; #9 (No. 1 Handline Shakeout) : 9.6%;
#20 (No. 2 Handline) : 30.4%

Units #6 - #9 are equipped with a common baghouse capturing 98% of sand particulate and returning to the system.
Unit #20 is equipped with a baghouse (KK) capturing 98% of sand particulate and returning to the system.

Based on US EPA's AP-42 Table 12.10-7 & 8:
Emission Factor for sand handling = 3.6 lb/tons iron produced
Emission Factor for shakeout = 3.2 lb/ton iron produced
PM-10 = 70% PM

Total potential PM emissions from molding line = 71,788 ton/yr * 53.8% casting yield * (3.6+3.2) lb/ton * (1/2000) ton/lb
= 131.31 ton/yr
Total potential PM-10 emissions = 131.31 ton/yr * 70% = 91.917 ton/yr
Total potential Lead emissions = 131.31 ton/yr * 0.3114% (based on lab analysis) = 0.4089 ton/yr

Total controlled : PM emissions = 131.31 * (1-98%) = 2.626 ton/yr
PM-10 emissions = 74.85 * (1-98%) = 1.497 ton/yr
Lead emissions = 0.4089 * (1-98%) = 0.0082 ton/yr

Emissions from Molding lines

	PM (ton/yr)		PM-10 (ton/yr)		Lead (ton/yr)	
Unit No.	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
6	39.39	0.79	27.57	0.55	0.1227	0.002
7	39.39	0.79	27.57	0.55	0.1227	0.002
9	12.61	0.25	8.83	0.18	0.0393	0.001
20	39.92	0.80	27.94	0.56	0.1243	0.002
TOTAL	**131.31**	**2.63**	**91.92**	**1.84**	**0.409**	**0.008**

c. Emission Unit #11 (steel shot blast finish cleaner with 98% efficiency Baghouse "Q")

51,840 pounds of dust with 60% brass was collected by the baghouse for melting 18,038 ton/yr (melting capacity 71,788 ton/yr).
PM-10 is 50% of PM; Lead is 5% of brass

Uncontrolled emission:
PM (ton/yr) = 51,840 lb/yr * (71,788 ton/18,038 ton)/ 98% * (1/2000) ton/lb = 105.26 ton/yr
PM-10 (ton/yr) = 105.26 ton/yr * 50% = 52.63 ton/yr
lead (ton/yr) = 105.26 ton/yr * 60% * 5% = 3.1578 ton/yr

Controlled Emission:
PM (ton/yr) = 105.26 * (1 - 98%) = 2.105 ton/yr
PM-10 (ton/yr) = 52.63 * (1 - 98%) = 1.053 ton/yr
lead (ton/yr) = 3.1578 * (1 - 98%) = 0.0631 ton/yr

d. Emission Unit #12 (steel shot blast finish cleaner with 98% efficiency Baghouse "S")

25,920 pounds of dust with 60% brass was collected by the baghouse for melting 18,038 tons.
PM-10 is 50% of PM; Lead is 5% of brass

Uncontrolled emission:
PM (ton/yr) = 25,920 lb/yr * (71,788 ton/18,038 ton) / 98% * (1/2000) ton/lb = 52.63 ton/yr
PM-10 (ton/yr) = 52.63 ton/yr * 50% = 26.315 ton/yr
lead (ton/yr) = 52.63 ton/yr * 60% * 5% = 1.5789 ton/yr

Controlled Emission:
PM (ton/yr) = 52.63 * (1 - 98%) = 1.0526 ton/yr
PM-10 (ton/yr) = 26.315 * (1 - 98%) = 0.5263 ton/yr
lead (ton/yr) = 1.5789 * (1 - 98%) = 0.0316 ton/yr

e. Emission Unit #13 (sand treatment and brass reclaim with 98% efficiency Baghouse "T")

132,000 pounds of dust with 4% brass was collected by the baghouse for melting 18,038 tons.
PM-10 is 50% of PM; Lead is 5% of brass

Uncontrolled emission:
PM (ton/yr) = 132,000 lb/yr * (71,788 ton/18,038 ton) / 98% * (1/2000) ton/lb = 268.03 ton/yr
PM-10 (ton/yr) = 268.03 ton/yr * 50% = 134.014 ton/yr

lead (ton/yr) = 268.03 ton/yr * 4% * 5% = 0.5361 ton/yr

Controlled Emission:
PM (ton/yr) = 268.03 * (1 - 98%) = 5.361 ton/yr
PM-10 (ton/yr) = 134.014 * (1 - 98%) = 2.68 ton/yr
lead (ton/yr) = 0.5361 * (1 - 98%) = 0.0107 ton/yr

f. Emission Unit #14 (steel shot blast removing sand and cores with 98% efficiency Baghouse "U")

288,000 pounds of dust with 3% brass was collected by the baghouse for melting 18,038 tons.
PM-10 is 50% of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 288,000 lb/yr * (71,788 ton/18,038 ton)/ 98% * (1/2000) ton/lb = 584.789 ton/yr
PM-10 (ton/yr) = 584.789 ton/yr * 50% = 292.395 ton/yr
lead (ton/yr) = 584.789 ton/yr * 3% * 5% = 0.877 ton/yr

Controlled Emission: PM (ton/yr) = 584.789 * (1 - 98%) = 11.696 ton/yr
PM-10 (ton/yr) = 292.395 * (1 - 98%) = 5.848 ton/yr
lead (ton/yr) = 0.877 * (1 - 98%) = 0.0175 ton/yr

g. Emission Unit #15 (grinding and cut-off operations with 98% efficiency Baghouse "V")

72,000 pounds of dust with 98% brass was collected by the baghouse for melting 18,038 tons.
PM-10 is 50% of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 72,000 lb/yr * (71,788 ton/18,038 ton) / 98% * (1/2000) ton/lb = 146.197 ton/yr
PM-10 (ton/yr) = 146.197 ton/yr * 50% = 73.099 ton/yr
lead (ton/yr) = 146.197 ton/yr * 98% * 5% = 7.16 ton/yr

Controlled Emission: PM (ton/yr) = 146.197 * (1 - 98%) = 2.92 ton/yr
PM-10 (ton/yr) = 73.099 * (1 - 98%) = 1.46 ton/yr
lead (ton/yr) = 7.16 * (1 - 98%) = 0.143 ton/yr

h. Emission Unit #16 (machining, grinding and polishing operations with 98% efficiency Baghouse "W")

108,492.6 pounds of dust with 99% brass was collected by a 93% efficient dropout box and baghouse for melting 18,038 tons.
PM-10 is 1/3 of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 108,492.6 lb/yr * (71,788 ton/18,038 ton) / 91.14% * (1/2000) ton/lb = 236.878 ton/yr
PM-10 (ton/yr) = 236.878 ton/yr / 3 = 78.959 ton/yr
lead (ton/yr) = 236.878 ton/yr * 99% * 5% = 11.725 ton/yr

Controlled Emission: PM (ton/yr) = 236.878 * (1 - 93%) * (1 - 98%) = 0.3316 ton/yr
PM-10 (ton/yr) = 78.959 * (1 - 93%) * (1 - 98%) = 0.1105 ton/yr
lead (ton/yr) = 11.725 * (1 - 93%) * (1 - 98%) = 0.0164 ton/yr

i. Emission Unit #17 (machining, grinding and polishing operations with 98% efficiency Baghouse "X")

72,620.4 pounds of dust with 99% brass was collected by a 70% efficient dropout box and baghouse for melting 18,038 tons.
PM-10 is 1/3 of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 72,620.4 lb/yr * (71,788 ton/18,038 ton) / 68.6% * (1/2000) ton/lb = 210.653 ton/yr
PM-10 (ton/yr) = 210.653 ton/yr / 3 = 70.22 ton/yr
lead (ton/yr) = 210.653 ton/yr * 98% * 5% = 10.322 ton/yr

Controlled Emission: PM (ton/yr) = 210.653 * (1 - 70%) * (1 - 98%) = 1.264 ton/yr
PM-10 (ton/yr) = 70.22 * (1 - 70%) * (1 - 98%) = 0.421 ton/yr
lead (ton/yr) = 10.322 * (1 - 70%) * (1 - 98%) = 0.062 ton/yr

j. Emission Unit #18 (machining, grinding and polishing operations with 98% efficiency Baghouse "Y")

884.76 pounds of dust with 99% brass was collected by a baghouse for melting 18,038 tons.
PM-10 is 1/3 of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 884.76 lb/yr * (71,788 ton/18,038 ton) / 98% * (1/2000) ton/lb = 1.796 ton/yr
PM-10 (ton/yr) = 1.796 ton/yr / 3 = .5988 ton/yr
lead (ton/yr) = 1.796 ton/yr * 99% * 5% = 0.0889 ton/yr

Controlled Emission: PM (ton/yr) = 1.796 * (1 - 98%) = 0.0359 ton/yr
PM-10 (ton/yr) = 0.5988 * (1 - 98%) = 0.01197 ton/yr
lead (ton/yr) = 0.0889 * (1 - 98%) = 0.0017 ton/yr

k. Emission Unit #19 (coreroom ventilation)

Emissions from this unit are from natural gas combustion at a capacity rate of 1.624 million Btu per hour and core molding. The emissions are calculated as follows:

Natural gas combustion

The following calculations determine the amount of emissions created by natural gas combustion, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant: 1.6242 MMBtu/hr * 8,760 hr/yr / 1000 Btu/cf * 2,000 lb/ton * Ef (lb/MMcf) = (ton/yr)

P M:	7.6	lb/MMcf =	**0.05**	**ton/yr**
P M-10:	7.6	lb/MMcf =	**0.05**	**ton/yr**
S O 2:	0.6	lb/MMcf =	**0.004**	**ton/yr**
N O x:	100.0	lb/MMcf =	**0.71**	**ton/yr**
V O C:	5.5	lb/MMcf =	**0.04**	**ton/yr**
C O:	84.0	lb/MMcf =	**0.60**	**ton/yr**

Core Molding Process

Note: The emission factors used in the HAP calculations below are from the manufacturer.
For Hp43 (only used for shell sand at a rate of 165.5 lb/hr and 0.0058 lb formaldehyde per ton of sand):
VOC (formaldehyde) emissions = 165.5 lb/hr * 8760 hr/yr * (1/2000) ton/lb * 0.0058 lb/ton * (1/2000) ton/lb = 0.0021 tons/yr

Automatic and Hp42 can both be used for shell sand and hot box sand. Hot box sand process has a potential of emitting 0.0115% VOC (formaldehyde). Hot box sand capacity for Automatic and Hp42 are 365 lb/hr and 280 lb/hr, respectively.

Emissions for Automatic:
Shell sand emissions: 173.5 lb/hr * 8760 hr/yr * (1/2000) ton/lb * 0.0058 lb/ton * (1/2000) ton/lb = 0.0022 ton/yr
Hot box sand emissions: 365 lb/hr * 8760 hr/yr * (1/2000) ton/lb * 0.0115% = 0.184 ton/yr (worst case for automatic)

Emissions for Hp42 (9 units):
Shell sand emissions: 197 lb/hr * 8760 hr/yr * (1/2000) ton/lb * 0.0058 lb/ton * (1/2000) ton/lb * 9 = 0.0225 ton/yr
Hot box sand emissions: 280 lb/hr * 8760 hr/yr * (1/2000) ton/lb * 0.0115% * 9 = 1.269 ton/yr (worst case for Hp42)

Total potential VOC emissions = 0.04 + 0.0021 + 0.184 + 1.269 = 1.495 ton/yr
Total potential formaldehyde emissions = 0.0021 + 0.184 + 1.269 = 1.455 ton/yr

AP-42 emission factor of 1.1 lb/ton production for PM is used to calculate PM emissions for core making.

Potential PM emissions = 1.1 lb/ton * 71,788 ton/yr * 53.8% * (1/2000) ton/lb = 21.21 ton/yr

Potential PM-10 emissions = 21.24 ton/yr * 70% (AP-42 Table 12.10-8) = 14.87 ton/yr

Total potential PM emissions = 21.21 + 0.05 = 21.26 ton/yr
Total potential PM-10 emissions = 14.87 + 0.05 = 14.92 ton/yr

l. Emission Unit #23 (fume Baghouse "UU")

Based on baghouse capturing 33,982 lb of fume for melting 18,038 tons of brass and furnace fume consisting of 6.41% of lead, PM and lead emissions are calculated as follows:

PM-10 = PM

Uncontrolled emission: PM (ton/yr) = 33,982 lb/yr * (71,788 ton/18,038 ton)/89.7% * (1/2000) ton/lb = 75.38 ton/yr
PM-10 (ton/yr) = 75.38 ton/yr
lead (ton/yr) = 75.38 ton/yr * 6.41% = 4.83 ton/yr

Controlled Emission: PM (ton/yr) = 75.38 * (1 - 89.7%) = 7.76 ton/yr
PM-10 (ton/yr) = 7.76 ton/yr
lead (ton/yr) = 4.83 * (1 - 89.7%) = 0.497 ton/yr

m. Emission Unit #26 (machining, grinding and polishing operations with 98% efficiency Baghouse "BC")

45,552 pounds of dust with 99% brass was collected by a 54% dropout box and 98% efficient baghouse for melting 18,038 tons.
PM-10 is 1/3 of PM; Lead is 5% of brass

Uncontrolled emission: PM (ton/yr) = 45,552 lb/yr * (71,788 ton/18,038 ton) / 52.92% * (1/2000) ton/lb = 171.28 ton/yr
PM-10 (ton/yr) = 171.28 ton/yr / 3 = 57.09 ton/yr
lead (ton/yr) = 171.28 ton/yr * 99% * 5% = 8.48 ton/yr

Controlled Emission: PM (ton/yr) = 171.28 * (1-54%) * (1 - 98%) = 1.57 ton/yr
PM-10 (ton/yr) = 57.09 * (1-54%) * (1 - 98%) = 0.5252 ton/yr
lead (ton/yr) = 8.48 * (1-54%) * (1 - 98%) = 0.078 ton/yr