INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: January 7, 2013

RE: Bahr Brothers Manufacturing, Inc./053-31902-00022

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted 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, Suite N 501E, 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.dot12/03/07

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New Source Review and Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

Bahr Brothers Manufacturing, Inc.
2545 Lincoln Boulevard
Marion, Indiana 46952

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

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

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

Indiana statutes from IC 13 and 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, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F053-31902-00022	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 7, 2013 Expiration Date: January 7, 2023

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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary ductile iron and steel foundry.

Source Address:	2545 Lincoln Boulevard, Marion, Indiana 46952
General Source Phone Number:	765-664-6235
SIC Code:	3321(Gray and Ductile Iron Foundries) and 3325 (Steel Foundries)
County Location:	Grant
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

Foundry Processes:

(a) One (1) charge handling process, identified as EU1, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(b) One (1) electric induction melting process, identified as EU2, constructed in 1978, consisting of two (2) large electric induction melting furnaces each rated at 1,750 pounds of metal per hour, with no control, exhausting inside the building.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) "large" electric induction melting furnaces, identified as EU2, are considered affected facilities because they process iron and steel at an area source.

(c) One (1) electric induction melting process, identified as EU20, approved for construction in 2012, consisting of two (2) large electric induction melting furnaces, with no control, exhausting inside the building:

(1) One (1) furnace, labeled as the 550 pound batch furnace, with a capacity that can melt 550 pounds of metal every 17 minutes, with a maximum process capacity rated at 1,941 pounds of metal per hour, with no control.

(2) One (1) furnace, labeled as the 1,650 pound furnace with a capacity that can melt 1,650 pounds of metal every 50 minutes, rated at 1,980 pounds of metal per hour, with no control.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU20, are considered affected facilities because they process iron and steel and are at an area

source.

Note 1: The maximum throughput capacity of each of the two (2) electric induction melting furnaces is limited by a single power supply such that only one (1) furnace can operate at a time. Additionally, the maximum throughput capacities of the charge handling, the pouring and casting, casting cooling, Inoculation (with Ferrosilicon) and castings shakeout operations are each dependent on the maximum capacity of the electric induction melting process (EU2 and EU20), accordingly.

For the electric induction melting process, identified as EU2 and EU20, the maximum throughput is 1.865 tons of metal per hour. The capacity of one electric induction melting furnace (EU2) rated at 1,750 pounds of metal per hour and the capacity of the larger of the two electric induction melting furnaces (EU20) of 1980 equals 3730 pounds of metal throughput divided by 2000 pounds per ton which equals 1.865 tons of metal per hour.

Note 2: The melting process is for both the iron and steel foundries and no furnace is specifically assigned to a particular type of metal. The furnaces are interchangeable and capable of processing either metal.

(d) One (1) pouring/casting process, identified as EU3, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(e) One (1) casting cooling process, identified as EU4, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(f) One (1) shakeout process, identified as EU5, constructed in 1970, with a maximum throughput of 1.865 tons of metal per year, no control, exhausting inside the building.

(g) Inoculation (with Ferrosilicon).

Sand Handling/Transport System:

(h) Enclosed Sand System, pneumatically conveyed, with a maximum throughput capacity of 354,780 tons per year of sand (using the combined capacity of the mixers (40.5 tons per hour) to determine the capacity of the system) and maximum throughput capacity of 24,090 tons per year (or 2.75 tons per hour) for the reclaimers, consisting of the following units:

(1) Seven (7) sand silos (also called tanks) consisting of the following:

(A) One (1) indoor Bi-Room sand tank, identified as EU A, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 20 tons, construction date unknown, with Bin Top Filter.

(B) One (1) indoor Floor sand tank, identified as EU B, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(C) One (1) indoor Line sand tank, identified as EU C, with maximum capacity of 7.5 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(D) One (1) indoor New sand tank, identified as EU D, construction date unknown, and storage capacity of 56 tons, with Bin Top Filter and Aqua Filter for control.

Note: The flow of virgin sand begins with a tanker truck that pneumatically blows sand into the Indoor New Sand tank (EU D), which the particulate fines from this sand handling are sent to the aqua filter. An aqua filter (which is a tote tank with water) with a hose, controls the fines and PM generated during the transport of new virgin sand into this tank and from the transfer of reclaimed sand back to the following outdoor sand tanks. Eventually, a sludge is created in the aqua filter and is disposed of by an outside hauler. A control efficiency of 90% is used for the controlled calculations for the sand tanks/silos.

Then the virgin sand from the Indoor New Sand Tank (EU D) is fed by gravity to the Core Room Mixer (EU 10). This is the point in the facility where new silica sand is introduced into the sand system. Reclaimed sand from the mechanical and thermal sand reclaimers is eventually sent to either the indoor Bi Room Sand Tank (EU A), the indoor Floor Sand Tank (EU B) or the indoor Line Sand Tank (EU C) for use in the associated mixers.

(E) One (1) outdoor sand tank, identified as EU E, construction date unknown, and storage capacity of 45 tons, with the Aqua Filter for control.

(F) One (1) outdoor sand tank, identified as EU F, construction date unknown, and storage capacity of 65 tons, with the Aqua Filter for control.

These outdoor sand tanks (EU E and EU F) are associated with the sand reclaimers. The outdoor sand tanks also use the aqua filter for control because the pneumatic transfer of sand being returned from inside the plant to these two sand tanks is also connected to the aqua filter.

(G) One (1) indoor Dirty sand tank, identified as EU G, with a maximum capacity of 1.0 tons of sand per hour and storage capacity of 56 tons, construction date unknown, with Bin Top Filter.

(2) One (1) enclosed floor mixer, identified as EU8, constructed in 1999, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Floor sand tank, identified as EU B is associated with the floor mixer, identified as EU8.

(3) One (1) enclosed bi-room mixer, identified as EU9, approved for construction in 2012, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Bi-Room sand tank, identified as EU A, is associated with this bi-room mixer, identified as EU9.

(4) One (1) enclosed core room mixer, identified as EU10, constructed in 1991, with a maximum throughput of 3.0 tons of sand per hour, no control, exhausting inside the building.

The Core Room Mixer does not have a closed storage tank for sand but is instead fed virgin silica sand directly from the Indoor New Sand Tank (EU D). An aqua filter controls the fines and PM generated during the transport of new virgin sand into this mixer.

(5) One (1) enclosed line mixer, identified as EU11, constructed in 1981, with a maximum throughput of 7.5 tons of sand per hour, no control, exhausting inside the building.

The indoor Line sand tank, identified as EU C, is associated with the line mixer, identified

as EU11.

Note: The mixers are completely enclosed so there are no PM emissions that generate from the actual "wet " mixing process but are generated from the sand handling. Mixing time ranges from 10 minutes to approximately 25 minutes inside the mixer which is a closed process.

(6) One (1) natural gas-fired thermal sand reclaimer, identified as EU6, constructed in 1993, with a maximum throughput of 1.0 tons sand per hour and a heat input rate of 1.0 million (MM) British thermal units (Btu) per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 1.

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU6) is an affected facility.

(7) One (1) mechanical sand reclaimer, identified as EU7, constructed in 1993, with a maximum throughput of 1.5 tons sand per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 2.

(8) One (1) natural gas-fired thermal sand reclaimer, identified as EU19, constructed in 2004, with a maximum throughput of 0.25 tons of sand per hour and a heat rate of 0.25 MMBtu/hr, utilizing one (1) baghouse for particulate matter control, exhausting to the atmosphere through stack (S5).

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU19) is an affected facility.

Blasting Process:

(i) Blasting operations consisting of the following:

(1) One (1) steel shot Metfin table blast machine # 1, identified as EU13, constructed in 2008, with a maximum process rate of 2238 lb/hour or 1.12 tons of metal per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 3.

(2) One (1) steel shot pangborn table machine # 2, identified as EU14, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

(3) One (1) steel shot wheelabrator tumble blast machine # 1, identified as EU15, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

Mold/Core Painting:

(j) One (1) mold release spray, identified as EU17, constructed in 1970, utilizing a hand brushing application system, coating a maximum of 0.45 metal patterns per hour, exhausting inside the building.

(k) One (1) mold/core painting process, identified as EU18, constructed in 1980, utilizing an air atomization spray application system, coating a maximum of 10 molds per hour, exhausting inside the building.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) One (1) natural gas-fired normalize heat treat furnace, identified as EU12, with a maximum throughput of 0.44 tons per hour and a heat input rate of 3.04 MMBtu per hour.

(2) Two (2) natural gas-fired ladle preheaters, identified as EU16, each with a maximum heat input rate of 0.33 MMBtu per hour.

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(d) 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 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(e) Miscellaneous Woodworking Activities in Pattern Shop (Sawing, Cutting, Routing, Planing, etc.), utilizing one (1) baghouse for particulate matter control.

(f) Any of the following structural steel and bridge fabrication activities:

(1) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent;

(2) Using 80 tons or less of welding consumables.

(g) Paved or unpaved roads and parking lots with public access.

(h) Emergency generators as follows:

(1) One (1) natural gas-fired only emergency generator rated at (30KW), which is 40 output horsepower. The unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

Under 40 CFR 63, Subpart ZZZZ, the natural gas emergency generator engine is an affected facility.

(i) 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.

(j) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining

fluids.

(k) Refractory storage not requiring air pollution control equipment.

(l) Equipment used exclusively for the following:

(1) Packaging lubricants and greases;

(2) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.

(m) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(n) Machining where an aqueous cutting coolant continuously floods the machining interface.

(o) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100EF) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(p) Closed loop heating and cooling systems.

(q) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(r) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.

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

(t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(u) Filter or coalescer media changeout.

(v) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

(w) A laboratory as defined in 326 IAC 2-7-1(20)(C).

A.4 FESOP Applicability [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 the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F053-31902-00022, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [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 in 326 IAC 2-8-12.

(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 describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 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 (g)(2)(B) of this condition.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F053-31902-00022 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(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, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.16 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, OAQ and shall include 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(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

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

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.9 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

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

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP permit.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B - Emergency Provision satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Foundry Processes:

(a) One (1) charge handling process, identified as EU1, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(b) One (1) electric induction melting process, identified as EU2, constructed in 1978, consisting of two (2) large electric induction melting furnaces each rated at 1,750 pounds of metal per hour, with no control, exhausting inside the building.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU2, are considered affected facilities because they process both iron and steel at an area source.

(c) One (1) electric induction melting process, identified as EU20, approved for construction in 2012, consisting of two (2) large electric induction melting furnaces, with no control, exhausting inside the building:

(1) One (1) furnace, labeled as the 550 pound batch furnace, with a capacity that can melt 550 pounds of metal every 17 minutes, with a maximum process capacity rated at 1,941 pounds of metal per hour, with no control.

(2) One (1) furnace, labeled as the 1,650 pound furnace with a capacity that can melt 1,650 pounds of metal every 50 minutes, rated at 1,980 pounds of metal per hour, with no control.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU20, are considered affected facilities because they process both iron and steel and are at an area source.

Note 1: The maximum throughput capacity of each of the two (2) electric induction melting furnaces is limited by a single power supply such that only one (1) furnace can operate at a time. Additionally, the maximum throughput capacities of the charge handling, the pouring and casting, casting cooling, Inoculation (with Ferrosilicon) and castings shakeout operations are each dependent on the maximum capacity of the electric induction melting process (EU2 and EU20), accordingly.

For the electric induction melting process, identified as EU2 and EU20, the maximum throughput is 1.865 tons of metal per hour. The capacity of one electric induction melting furnace (EU2) rated at 1,750 pounds of metal per hour and the capacity of the larger of the two electric induction melting furnaces (EU20) of 1980 equals 3730 pounds of metal throughput divided by 2000 pounds per ton which equals 1.865 tons of metal per hour.

Note 2: The melting process is for both the iron and steel foundries and no furnace is specifically assigned to a particular type of metal. The furnaces are interchangeable and capable of processing either metal.

(d) One (1) pouring/casting process, identified as EU3, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, with no control, exhausting inside the building.

(e) One (1) casting cooling process, identified as EU4, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, with no control, exhausting inside the building.

(f) One (1) shakeout process, identified as EU5, constructed in 1970, with a maximum throughput of 1.865 tons of metal per year, with no control, exhausting inside the building.

(g) Inoculation (with Ferrosilicon).

Sand Handling/Transport System:

(h) Enclosed Sand System, pneumatically conveyed, with a maximum throughput capacity of 354,780 tons per year (or 40.5 tons per hour) for the mixers and maximum throughput capacity of 24,090 tons per year (or 2.75 tons per hour) for the reclaimers, consisting of the following units:

(1) Seven (7) sand silos (also called tanks) consisting of the following:

(A) One (1) indoor Bi-Room sand tank, identified as EU A, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 20 tons, construction date unknown, with Bin Top Filter.

(B) One (1) indoor Floor sand tank, identified as EU B, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(C) One (1) indoor Line sand tank, identified as EU C, with maximum capacity of 7.5 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(D) One (1) indoor New sand tank, identified as EU D, construction date unknown, and storage capacity of 20 tons, with Bin Top Filter and Aqua Filter for control.

Note: The flow of virgin sand begins with a tanker truck that pneumatically blows sand into the Indoor New Sand tank (EU D), which the particulate fines from this sand handling are sent to the aqua filter. An aqua filter (which is a tote tank with water) with a hose, controls the fines and PM generated during the transport of new virgin sand into this tank and from the transfer of reclaimed sand back to the following outdoor sand tanks. Eventually a sludge is created in the aqua filter and is disposed of by an outside hauler. A control efficiency of 90% is used for the controlled calculations for the sand tanks/silos.

Then the virgin sand from the Indoor New Sand Tank (EU D) is fed by gravity to the Core Room Mixer (EU 10). This is the point in the facility where new silica sand is introduced into the sand system. Reclaimed sand from the mechanical and thermal sand reclaimers is eventually sent to either the indoor Bi Room Sand Tank (EU A), the indoor Floor Sand Tank (EU B) or the indoor Line Sand Tank (EU C) for use in the associated mixers.

(E) One (1) outdoor sand tank, identified as EU E, construction date unknown, and storage capacity of 45 tons, with the Aqua Filter for control.

(F) One (1) outdoor sand tank, identified as EU F, construction date unknown, and storage capacity of 65 tons, with the Aqua Filter for control.

These outdoor sand tanks (EU E and EU F) are associated with the sand reclaimers. The outdoor sand tanks also use the aqua filter for control because the pneumatic transfer of sand being returned from inside the plant to these two sand tanks is also connected to the aqua filter.

(G) One (1) indoor Dirty sand tank, identified as EU G, with a maximum capacity of 1.0 tons of sand per hour and storage capacity of 56 tons, construction date unknown, with Bin Top Filter.

(2) One (1) enclosed floor mixer, identified as EU8, constructed in 1999, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Floor sand tank, identified as EU B is associated with the floor mixer, identified as EU8.

(3) One (1) enclosed bi-room mixer, identified as EU9, approved for construction in 2012, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Bi-Room sand tank, identified as EU A, is associated with this bi-room mixer, identified as EU9.

(4) One (1) enclosed core room mixer, identified as EU10, constructed in 1991, with a maximum throughput of 3.0 tons of sand per hour, no control, exhausting inside the building.

The Core Room Mixer does not have a closed storage tank for sand but is instead fed virgin silica sand directly from the Indoor New Sand Tank (EU D). An aqua filter controls the fines and PM generated during the transport of new virgin sand into this mixer.

(5) One (1) enclosed line mixer, identified as EU11, constructed in 1981, with a maximum throughput of 7.5 tons of sand per hour, no control, exhausting inside the building.

The indoor Line sand tank, identified as EU C, is associated with the line mixer, identified as EU11.

Note: The mixers are completely enclosed so there are no PM emissions that generate from the actual "wet " mixing process but are generated from the sand handling. Mixing time ranges from 10 minutes to approximately 25 minutes inside the mixer which is a closed process.

(6) One (1) natural gas-fired thermal sand reclaimer, identified as EU6, constructed in 1993, with a maximum throughput of 1.0 tons sand per hour and a heat input rate of 1.0 million (MM) British thermal units (Btu) per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 1.

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU6) is an affected facility.

(7) One (1) mechanical sand reclaimer, identified as EU7, constructed in 1993, with a maximum throughput of 1.5 tons sand per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 2.

(8) One (1) natural gas-fired thermal sand reclaimer, identified as EU19, constructed in 2004, with a maximum throughput of 0.25 tons of sand per hour and a heat rate of 0.25 MMBtu/hr, utilizing one (1) baghouse for particulate matter control, exhausting to the atmosphere through stack (S5).

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU19) is an affected facility.

Blasting Process:

(i) Blasting operations consisting of the following:

(1) One (1) steel shot Metfin table blast machine # 1, identified as EU13, constructed in 2008, with a maximum process rate of 2238 lb/hour or 1.12 tons of metal per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 3.

(2) One (1) steel shot pangborn table machine # 2, identified as EU14, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

(3) One (1) steel shot wheelabrator tumble blast machine # 1, identified as EU15, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

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

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

D.1.1 PM PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the throughput shall be limited as follows:

Metal Throughput Limits

(a) The combined metal throughput to the electric induction melting process (EU2 and EU20) shall not exceed 4,730.4 tons per 12 consecutive month period with compliance determined at the end of each month.

This shall also limit the throughput of metal to the charge handling (EU1), pouring/casting (EU3), casting cooling (EU4), Inoculation (with Ferrosilicon) and casting shakeout (EU5) processes.

(b) PM emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.90 pounds per ton of metal throughput.

(c) PM emissions from the charge handling operation (EU1) shall not exceed 0.60 pounds per ton of metal throughput.

(d) PM emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

(e) PM emissions from the pouring/casting (EU3) operation shall not exceed 2.8 pounds per ton of metal throughput.

(f) PM emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

(g) PM emissions from the casting shakeout (EU5) operation shall not exceed 3.20 pounds per ton of metal throughput.

Sand Throughput Limits

(h) The sand throughput to the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor Sand Tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and associated Floor Mixer (EU 8), Bi-room Mixer (EU 9), Core Room Mixer (EU 10) and Line Mixer (EU 11) shall not exceed 87,600 tons per 12 consecutive month period with compliance determined at the end of each month.

(i) PM emissions from the sand system process (EU A, EU B, EU C, EU D, EU E and F and Associated mixers (EU 8, EU 9, EU 10 and EU 11), shall not exceed 3.6 pounds per ton of sand throughput.

Blast Machine Limits

(j) PM emissions from the Metfin table blast machine #1 (EU13), Stack 3, shall not exceed 0.275 pounds per hour.

(k) PM emissions from the blasting units: pangborn table blast machine #2 (EU14), and wheelabrator tumble blast machine #1 (EU15), combined for stack 4, shall not exceed 0.184 pounds per hour.

Compliance with these limitations, combined with the limited potential to emit from all other units at this source, will limit source wide PM emissions to less than 100 tons per 12 consecutive month period and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70) not applicable.

D.1.2 Particulate Matter Less Than 10 Microns (PM10) and PM2.5 [326 IAC 2-2][326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, and in order to render the requirements of 326 IAC 2-2 not applicable, the throughput shall be limited as follows:

Metal Throughput Limits

(a) The combined metal throughput to the electric induction melting process (EU2 and EU20) shall not exceed 4,730.4 tons per 12 consecutive month period with compliance determined at the end of each month.

This shall limit the throughput of metal to the charge handling (EU1), pouring/casting (EU3), casting cooling (EU4), Inoculation (with Ferrosilicon), and casting shakeout (EU5) processes as well.

(b) PM10 emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.86 pounds per ton of metal throughput.

(c) PM2.5 emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.86 pounds per ton of metal throughput.

(d) PM10 emissions from the charge handling operation (EU1) shall not exceed

0.36 pounds per ton of metal throughput.

(e) PM2.5 emissions from the charge handling operation (EU1) shall not exceed 0.36 pounds per ton of metal throughput.

(f) PM10 emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

(g) PM2.5 emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

(h) PM10 emissions from the pouring/casting (EU3) operation shall not exceed 0.66 pounds per ton of metal throughput.

(i) PM2.5 emissions from the pouring/casting (EU3) operation shall not exceed 0.66 pounds per ton of metal throughput.

(j) PM10 emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

(k) PM2.5 emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

(l) PM10 emissions from the casting shakeout (EU5) operation shall not exceed 2.24 pounds per ton of metal throughput.

(m) PM2.5 emissions from the casting shakeout (EU5) operation shall not exceed 2.24 pounds per ton of metal throughput.

Sand Throughput Limits

(n) The sand throughput to the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor Sand Tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and associated Floor Mixer (EU 8), Bi-room Mixer (EU 9), Core Room Mixer (EU 10) and Line Mixer (EU 11) shall not exceed 87,600 tons per 12 consecutive month period with compliance determined at the end of each month.

(o) PM10 emissions from the sand system process (EU A, EU B, EU C, EU D, EU E and F and associated mixers (EU 8, EU 9, EU 10 and EU 11), shall be limited to 0.54 pounds per ton of sand throughput.

(p) PM2.5 emissions from the sand system process (EU A, EU B, EU C, EU D, EU E and F and associated mixers (EU 8, EU 9, EU 10 and EU 11), shall be limited to 0.54 pounds per ton of sand throughput.

Blast Machine Limits

(q) PM10 emissions from the blasting unit: Metfin table blast machine #1 (EU13), Stack 3 shall not exceed 0.028 pounds per hour.

(r) PM2.5 emissions from the blasting unit: Metfin table blast machine #1 (EU13), Stack 3 shall not exceed 0.028 pounds per hour.

(s) PM10 emissions from the blasting units: pangborn table blast machine #2 (EU14), and

wheelabrator tumble blast machine #1 (EU15), combined for Stack 4, shall not exceed 0.018 pounds per hour.

(t) PM2.5 emissions from the blasting units: pangborn table blast machine #2 (EU14), and wheelabrator tumble blast machine #1 (EU15), combined for Stack 4, shall not exceed 0.018 pounds per hour.

Pouring, Cooling and Casting Limit

(u) CO emissions from the pouring/castings, cooling, and shakeout operation shall not exceed 6.0 lbs of CO per ton of metal throughput.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5 and CO to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on the following:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)
Charge Handling (EU1)	1.865	6.22
Electric Induction Melting (EU2)	1.865	6.22
Electric Induction Melting (EU20)	1.865	6.22
Pouring/Casting (EU3)	1.865	6.22
Casting Cooling (EU4)	1.865	6.22
Shakeout (EU5)	1.865	6.22
Thermal Sand Reclaimer (EU6)	1.0	4.10
Mechanical Sand Reclaimer (EU7)	1.5	5.38
Indoor New sand tank, EU D *	40.5	42.64
Inoculation (with Ferrosilicon)	1.865	6.22
Metfin Table Blast Machine #1 (EU13)	1.12	4.42
Pangborn Table Blast Machine #2 (EU14)	0.373	2.12
Wheelabrator Tumble Blast Machine #1 (EU15)	0.373	2.12
Thermal Sand Reclaimer (EU19)	0.25	1.62

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

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

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

* The particulate matter (PM) from the Indoor New sand tank (EU D) was calculated using the following equation:

Interpolation 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 in pounds per hour and P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM)

In order to comply with Conditions D.1.1, D.1.2 and D.1.3, the baghouses for particulate control shall be in operation at all times that the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), wheelabrator tumble blast machine #1 (EU15) and thermal sand reclaimer (EU19), are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), wheelabrator tumble blast machine (EU15), and thermal sand reclaimer (EU19), stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), the wheelabrator tumble blast machine #1 (EU15), and thermal sand reclaimer (EU19), at least once daily when the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), the wheelabrator tumble blast machine #1 (EU15), and thermal sand reclaimer (EU19), are in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.2 and 9.0 inches of water, unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to

Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.8 Broken or Failed Bag Detection

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

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

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

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

D.1.9 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual metal throughput limit to the charge handling (EU1), electric induction melting process (EU2 and EU20), pouring/casting (EU3), casting cooling (EU4), shakeout (EU5) and the sand throughput to the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor Sand Tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and associated Floor Mixer (EU 8), Bi-room Mixer (EU 9), Core Room Mixer (EU 10) and Line Mixer (EU 11) processes established in conditions D.1.1 and D.1.2.

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

(2) Metal throughput to the charge handling (EU1), electric induction melting (EU2 and EU20), pouring/casting (EU3), casting cooling (EU4), shakeout (EU5) processes per month since the last compliance determination period.

(3) Sand throughput to the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor Sand Tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and associated Floor Mixer (EU 8), Bi-room Mixer (EU 9), Core Room Mixer (EU 10) and Line Mixer (EU 11) processes per month since the last compliance determination Period.

(b) To document the compliance status with Condition D.1.6, the Permittee shall maintain

records of daily visible emission notations of the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), the wheelabrator tumble blast machine #1 (EU15), and thermal sand reclaimer (EU19), stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day).

(c) To document the compliance status with Condition D.1.7, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the thermal sand reclaimer (EU6), mechanical sand reclaimer (EU7), Metfin table blast machine #1 (EU13), pangborn table blast machine #2 (EU14), the wheelabrator tumble blast machine #1 (EU15), and the thermal sand reclaimer (EU19). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the process did not operate that day).

(d) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.1.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with conditions D.1.1 and D.1.2, shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-8-4(10)]

Mold/Core Painting:

(j) One (1) mold release spray, identified as EU17, constructed in 1970, utilizing a hand brushing application system, coating a maximum of 0.45 metal patterns per hour.

(k) One (1) mold/core painting process, identified as EU18, constructed in 1980, utilizing an air atomization spray application system, coating a maximum of 10 molds per hour.

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

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

D.2.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The usage of VOC delivered to the applicators, including clean up solvents, in the one (1) mold/core painting process, (EU18), shall not exceed 25 tons per 12 consecutive month period, with compliance determined at the end of each month. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable to this facility.

D.2.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d), particulate from the mold/core painting process, (EU18), shall be controlled by a dry particulate filter, waterwash, or equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for the mold/core painting process (EU18) and the control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.4 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.5 VOC Emissions

Compliance with Condition D.2.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent month.

D.2.6 Particulate Matter (PM) Control

In order to comply with condition D.2.2 the dry particulate filter, waterwash, or equivalent control device for PM control shall be in operation at all times when mold/core painting process, (EU18), is in operation.

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

D.2.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC usage for each month; and

(5) The weight of VOCs used for each compliance period.

(b) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.2.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with condition D.2.1, shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) One (1) natural gas-fired normalize heat treat furnace, identified as EU12, with a maximum throughput of 0.44 tons per hour and a heat input rate of 3.04 MMBtu per hour.

(2) Two (2) natural gas-fired ladle preheaters, identified as EU16, each with a maximum heat input rate of 0.33 MMBtu per hour.

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment. [326 IAC 6-3-2]

(d) 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 cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(e) Miscellaneous Woodworking activities in the pattern shop (sawing, cutting, routing and planing, etc.). utilizing one (1) baghouse for particulate matter control. [326 IAC 6-3-2]

Other activities with insignificant thresholds:

(f) Any of the following structural steel and bridge fabrication activities:

(1) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent;

(2) Using 80 tons or less of welding consumables.

(g) Paved or unpaved roads and parking lots with public access.

(h) Emergency generators as follows:

(1) One (1) natural gas-fired only emergency generator rated at (30KW), which is 40 output horsepower. The unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

Under 40 CFR 63, Subpart ZZZZ, the natural gas emergency generator engine is an affected facility.

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

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

D.3.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for the degreasing operations, the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.3.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This limit applies to the following units:

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.

(b) Grinding and machining operations controller 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 cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(c) Other activities with insignificant thresholds:

(1) Miscellaneous Woodworking activities in the pattern shop (sawing, cutting, routing and planing, etc.) utilizing one (1) baghouse for particulate matter control.

(f) Any of the following structural steel and bridge fabrication activities:

(1) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent;

(2) Using 80 tons or less of welding consumables.

D.3.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Foundry:

(b) One (1) electric induction melting process identified as EU2, constructed in 1978, consisting of two (2) large electric induction melting furnaces each rated at 1.750 pounds of metal per hour, with no control, exhausting inside the building.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU2, are considered affected facilities because they process iron and steel at an area source.

(c) One (1) electric induction melting process identified as EU20, approved for construction in 2012, consisting of two (2) large electric induction melting furnaces, with no control, exhausting inside the building.

(1) One (1) furnace, labeled as the 550 pound batch furnace, with a capacity that can melt 550 pounds of metal every 17 minutes, with a maximum process capacity rated at 1,941 pounds of metal per hour, with no control.

(2) One (1) furnace, labeled as the 1,650 pound furnace with a capacity that can melt 1,650 pounds of metal every 50 minutes, rated at 1,980 pounds of metal per hour, with no control.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) "large" electric induction melting furnaces, identified as EU20, are considered affected facilities because they process iron and steel and are at an area source.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources, Subpart ZZZZZ (5Z)

E.1.1 General Provisions Relating to NESHAP Subpart ZZZZZ [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.460(b), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, Appendix C of 40 CFR Part 63, Subpart ZZZZZ in accordance with the schedule in 40 CFR 63 Subpart ZZZZZ.

E.1.2 NESHAP for Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZ (as a small foundry) except as otherwise specified in 40 CFR Part 63, Subpart ZZZZZ (included as Attachment A of this permit):

(1) 40 CFR 63.10880(a), (b)(1), (c), (e), and (f)
(2) 40 CFR 63.10881(a)(1) and (2) and (d)
(3) 40 CFR 63.10885
(4) 40 CFR 63.10886

(5) 40 CFR 63.10890
(6) 40 CFR 63.10899
(7) 40 CFR 63.10905
(8) 40 CFR 63.10906

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(h) One (1) natural gas-fired only emergency generator rated at (30KW), which is 40 output Horsepower. The unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

Under 40 CFR 63, Subpart ZZZZ, the natural gas emergency generator engine is an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, Subpart ZZZZ (4Z)

E.2.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.340(b), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-82, for the natural gas-fired only emergency generator as specified in Table 8 of 40 CFR Part 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.2.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment B) which are incorporated by reference as 326 IAC 20-82 for the natural gas-fired only emergency generator:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(iii)
(4) 40 CFR 63.6595(a)(1), (b), and (c)
(5) 40 CFR 63.6603
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (j)
(8) 40 CFR 63.6635
(9) 40 CFR 63.6640
(10) 40 CFR 63.6645(a)(5)
(11) 40 CFR 63.6650
(12) 40 CFR 63.6655
(13) 40 CFR 63.6660
(14) 40 CFR 63.6665

(15) 40 CFR 63.6670
(16) 40 CFR 63.6675
(17) Table 2d (item 5)
(18) Table 6 (item 9)
(19) Table 8

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(h)(5) One (1) natural gas-fired thermal sand reclaimer, identified as EU6, constructed in 1993, with a maximum throughput of 1.0 tons sand per hour and a heat input rate of 1.0 million (MM) British thermal units (Btu) per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 1.

(h)(7) One (1) natural gas-fired thermal sand reclaimer, identified as EU19, constructed in 2004, with a maximum throughput of 0.25 tons of sand per hour and a heat rate of 0.25 MMBtu/hr, utilizing one (1) baghouse for particulate matter control.

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimers, identified as EU6 and EU19 are affected facilities.

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

New Source Performance Standards (NSPS) Requirements: For Calciners and Dryers in Mineral Industries, Subpart UUU (3U)

E.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart UUU.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

E.3.2 New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries, [40 CFR Part 60, Subpart UUU] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart UUU (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart UUU:

(1)	60.730(a)(c)	(2)	60.731
(3)	60.732	(4)	60.733
(5)	60.734(a)	(6)	60.735(a)(c)
(7)	60.736	(8)	60.737

E.3.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under 40 CFR Part 60, Subpart UUU, utilizing methods as approved by the Commissioner to document compliance with Condition E.3.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022

This form consists of 2 pages **Page 1 of 2**

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

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

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

FESOP Quarterly Report

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022
Facility: Electric induction melting process (EU2 and EU20)
Parameter: Metal throughput
Limit: The total throughput of metal shall not exceed 4,730.4 tons per 12 consecutive month period.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Metal throughput This Month	Metal throughput Previous 11 Months	Metal throughput 12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

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

FESOP Quarterly Report

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022
Facility: Sand system
Parameter: Sand throughput
Limit: The total throughput of sand to the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor Sand Tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and associated Floor Mixer (EU 8), Bi-room Mixer (EU 9), Core Room Mixer (EU 10) and Line Mixer (EU 11) processes shall not exceed 87,600 tons per 12 consecutive month period.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand throughput This Month	Sand throughput Previous 11 Months	Sand throughput 12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

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

FESOP Quarterly Report

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022
Facility: Mold/core painting (EU18)
Parameter: VOC usage
Limit: The total usage of VOC delivered to the applicators, including clean up solvents, shall be limited to less than 25 tons per 12 consecutive month period.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Usage This Month	VOC Usage Previous 11 Months	VOC Usage 12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
FESOP Permit No.: F053-31902-00022

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B - Emergency Provision satisfies the reporting requirements of paragraph (a) of Section C - General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Attachment A

Bahr Brothers Manufacturing, Inc.
2545 Lincoln Boulevard
Marion, Indiana 46952

Title 40: Protection of Environment

Part 63 - National Emission Standards for Hazardous Air Pollutants

Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

Permit No. F053-31902-00022

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

Source: 73 FR 252, Jan. 2, 2008, unless otherwise noted.

Applicability and Compliance Dates

§ 63.10880 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions.

(b) This subpart applies to each new or existing affected source. The affected source is each iron and steel foundry.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before September 17, 2007.

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after September 17, 2007. If an affected source is not new pursuant to the preceding sentence, it is not new as a result of a change in its compliance obligations pursuant to §63.10881(d).

(c) On and after January 2, 2008, if your iron and steel foundry becomes a major source as defined in §63.2, you must meet the requirements of 40 CFR part 63, subpart EEEEE.

(d) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act.

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's metal melt production for calendar year 2008. If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry. If your metal melt production for calendar year 2008 is greater than 20,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than January 2, 2009.

(g) If you own or operate a new affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's annual metal melting capacity at startup. If the annual metal melting capacity is 10,000 tons or less, your area source is a small foundry. If the annual metal melting capacity is greater than 10,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than 120 days after startup.

§ 63.10881 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by the dates in paragraphs (a)(1) through (3) of this section.

(1) Not later than January 2, 2009 for the pollution prevention management practices for metallic scrap in §63.10885(a) and binder formulations in §63.10886.

(2) Not later than January 4, 2010 for the pollution prevention management practices for mercury in §63.10885(b).

(3) Except as provided in paragraph (d) of this section, not later than 2 years after the date of your large foundry's notification of the initial determination required in §63.10880(f) for the standards and management practices in §63.10895.

(b) If you have a new affected source for which the initial startup date is on or before January 2, 2008, you must achieve compliance with the provisions of this subpart not later than January 2, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after January 2, 2008, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

(d) Following the initial determination for an existing affected source required in §63.10880(f),

(1) Beginning January 1, 2010, if the annual metal melt production of your small foundry exceeds 20,000 tons during the preceding calendar year, you must submit a notification of foundry reclassification to the Administrator within 30 days and comply with the requirements in paragraphs (d)(1)(i) or (ii) of this section, as applicable.

(i) If your small foundry has never been classified as a large foundry, you must comply with the requirements for a large foundry no later than 2 years after the date of your foundry's notification that the annual metal melt production exceeded 20,000 tons.

(ii) If your small foundry had previously been classified as a large foundry, you must comply with the requirements for a large foundry no later than the date of your foundry's most recent notification that the annual metal melt production exceeded 20,000 tons.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry, even if your annual metal melt production falls below 20,000 tons. After 3 years, you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less. If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a small foundry no later than the date you notify the Administrator of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the date you notify the Administrator of the reclassification.

(e) Following the initial determination for a new affected source required in §63.10880(g),

(1) If you increase the annual metal melt capacity of your small foundry to exceed 10,000 tons, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the startup date for the new equipment, if applicable, or the date of issuance for your revised State or Federal operating permit.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry. After 3 years, you may reclassify your facility as a small foundry provided your most recent annual metal melt capacity is 10,000 tons or less. If you reclassify your large foundry as a small foundry, you must notify the Administrator within 30 days and comply with the requirements for a small foundry no later than the date your melting equipment was removed or taken out of service, if applicable, or the date of issuance for your revised State or Federal operating permit.

Pollution Prevention Management Practices for New and Existing Affected Sources

§ 63.10885 What are my management practices for metallic scrap and mercury switches?

(a) *Metallic scrap management program.* For each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in paragraph (a)(1) or (2) of this section. You must keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of your scrap providers. You may have certain scrap subject to paragraph (a)(1) of this section and other scrap subject to paragraph (a)(2) of this section at your facility provided the metallic scrap remains segregated until charge make-up.

(1) *Restricted metallic scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of this subpart, “free liquids” is defined as material that fails the paint filter test by EPA Method 9095B, “Paint Filter Liquids Test” (revision 2), November 2004 (incorporated by reference—see §63.14). The requirements for no free liquids do not apply if the owner or operator can demonstrate that the free liquid is water that resulted from scrap exposure to rain.

(2) *General iron and steel scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in paragraph (a)(2)(i) or (ii) of this section.

(i) Except as provided in paragraph (a)(2)(ii) of this section, specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(ii) For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(b) *Mercury requirements.* For scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of this section for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in paragraph (b)(4) of this section for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.

(1) *Site-specific plan for mercury switches.* You must comply with the requirements in paragraphs (b)(1)(i) through (v) of this section.

(i) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.

(ii) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (b)(1)(i) of this section for removal of mercury switches. You must submit the plan to the Administrator for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Administrator or delegated authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Administrator or delegated authority. The Administrator or delegated authority may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan must include:

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;

(B) Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification;

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in paragraph (b)(1)(ii)(C) of this section).

(iii) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Administrator may request documentation or additional information at any time.

(iv) You must establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph (b)(1) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

(v) For each scrap provider, you must submit semiannual progress reports to the Administrator that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (b)(1)(ii)(A) of this section. This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Administrator may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.

(2) *Option for approved mercury programs.* You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under paragraph (b)(2) of this section unless and until the Administrator disapproves the program (in part or in whole) under paragraph (b)(2)(iii) of this section.

(i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;

(ii) The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (b)(2) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and

(iii) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.

(iv) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal or mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

(C) You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(3) *Option for specialty metal scrap.* You must certify in your notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.

(4) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in paragraphs (b)(1) through (3) of this section, you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.

§ 63.10886 What are my management practices for binder formulations?

For each furfuryl alcohol warm box mold or core making line at a new or existing iron and steel foundry, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.

Requirements for New and Existing Affected Sources Classified as Small Foundries

§ 63.10890 What are my management practices and compliance requirements?

(a) You must comply with the pollution prevention management practices for metallic scrap and mercury switches in §63.10885 and binder formulations in §63.10886.

(b) You must submit an initial notification of applicability according to §63.9(b)(2).

(c) You must submit a notification of compliance status according to §63.9(h)(1)(i). You must send the notification of compliance status before the close of business on the 30th day after the applicable compliance date specified in §63.10881. The notification must include the following compliance certifications, as applicable:

(1) “This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)” and/or “This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2).”

(2) “This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1) and/or “This facility participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator according to §63.10885(b)(2) and has prepared a plan for participation in the EPA-approved program according to §63.10885(b)(2)(iv)”

and/or “The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches” and/or “This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4).”

(3) “This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886.”

(d) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(e) You must maintain records of the information specified in paragraphs (e)(1) through (7) of this section according to the requirements in §63.10(b)(1).

(1) Records supporting your initial notification of applicability and your notification of compliance status according to §63.10(b)(2)(xiv).

(2) Records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(3) If you are subject to the requirements for a site-specific plan for mercury switch removal under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in paragraph §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (f) of this section.

(4) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

(5) Records to document use of binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(6) Records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provides information on the binder or coating materials used.

(7) Records of metal melt production for each calendar year.

(f) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The report must clearly identify any deviation from the pollution prevention management practices in §63.10885 or §63.10886 and the corrective action taken.

(g) You must submit a written notification to the Administrator of the initial classification of your facility as a small foundry as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d)(1) or (e), as applicable.

(h) Following the initial determination for an existing affected source as a small foundry, if the annual metal melt production exceeds 20,000 tons during the preceding year, you must comply with the requirements for large foundries by the applicable dates in §63.10881(d)(1)(i) or (d)(1)(ii). Following the initial determination for a new affected source as a small foundry, if you increase the annual metal melt capacity to exceed 10,000 tons, you must comply with the requirements for a large foundry by the applicable dates in §63.10881(e)(1).

(i) You must comply with the following requirements of the General Provisions (40 CFR part 63, subpart A): §§63.1 through 63.5; §63.6(a), (b), (c), and (e)(1); §63.9; §63.10(a), (b)(1), (b)(2)(xiv), (b)(3), (d)(1), (d)(4), and (f); and §§63.13 through 63.16. Requirements of the General

Provisions not cited in the preceding sentence do not apply to the owner or operator of a new or existing affected source that is classified as a small foundry.

Requirements for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

§ 63.10895 What are my standards and management practices?

(a) If you own or operate an affected source that is a large foundry as defined in §63.10906, you must comply with the pollution prevention management practices in §§63.10885 and 63.10886, the requirements in paragraphs (b) through (e) of this section, and the requirements in §§63.10896 through 63.10900.

(b) You must operate a capture and collection system for each metal melting furnace at a new or existing iron and steel foundry unless that furnace is specifically uncontrolled as part of an emissions averaging group. Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(c) You must not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed the applicable limit in paragraph (c)(1) or (2) of this section. When an alternative emissions limit is provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limit is used to demonstrate compliance.

(1) For an existing iron and steel foundry, 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged.

(2) For a new iron and steel foundry, 0.1 pounds of PM per ton of metal charged or 0.008 pounds of total metal HAP per ton of metal charged.

(d) If you own or operate a new affected source, you must comply with each control device parameter operating limit in paragraphs (d)(1) and (2) of this section that applies to you.

(1) For each wet scrubber applied to emissions from a metal melting furnace, you must maintain the 3-hour average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(2) For each electrostatic precipitator applied to emissions from a metal melting furnace, you must maintain the voltage and secondary current (or total power input) to the control device at or above the level established during the initial or subsequent performance test.

(e) If you own or operate a new or existing iron and steel foundry, you must not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent.

§ 63.10896 What are my operation and maintenance requirements?

(a) You must prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in §63.10895. You must maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:

(1) General facility and contact information;

(2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;

(3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in §63.10897(d)(2).

(4) Identity and estimated quantity of the replacement parts that will be maintained in inventory; and

(5) For a new affected source, procedures for operating and maintaining a CPMS in accordance with manufacturer's specifications.

(b) You may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in paragraph (a)(1) through (5) of this section to demonstrate compliance with the requirements for an O&M plan.

§ 63.10897 What are my monitoring requirements?

(a) You must conduct an initial inspection of each PM control device for a metal melting furnace at an existing affected source. You must conduct each initial inspection no later than 60 days after your applicable compliance date for each installed control device which has been operated within 60 days of the compliance date. For an installed control device which has not operated within 60 days of the compliance date, you must conduct an initial inspection prior to startup of the control device. Following the initial inspections, you must perform periodic inspections and maintenance of each PM control device for a metal melting furnace at an existing affected source. You must perform the initial and periodic inspections according to the requirements in paragraphs (a)(1) through (4) of this section. You must record the results of each initial and periodic inspection and any maintenance action in the logbook required in §63.10899(b)(13).

(1) For the initial inspection of each baghouse, you must visually inspect the system ductwork and baghouse units for leaks. You must also inspect the inside of each baghouse for structural integrity and fabric filter condition. Following the initial inspections, you must inspect and maintain each baghouse according to the requirements in paragraphs (a)(1)(i) and (ii) of this section.

(i) You must conduct monthly visual inspections of the system ductwork for leaks.

(ii) You must conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.

(2) For the initial inspection of each dry electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold. You must also visually inspect the system ductwork and electrostatic housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each dry electrostatic precipitator according to the requirements in paragraphs (a)(2)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold.

(ii) You must conduct monthly visual inspections of the system ductwork, housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate rappers, hopper, and air diffuser plates every 24 months.

(3) For the initial inspection of each wet electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present. You must also visually inspect the system ductwork and electrostatic precipitator housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each wet electrostatic precipitator according to the requirements in paragraphs (a)(3)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present.

(ii) You must conduct monthly visual inspections of the system ductwork, electrostatic precipitator housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates every 24 months.

(4) For the initial inspection of each wet scrubber, you must verify the presence of water flow to the scrubber. You must also visually inspect the system ductwork and scrubber unit for leaks and inspect the interior of the scrubber for structural integrity and the condition of the demister and spray nozzle. Following the initial inspection, you must inspect and maintain each wet scrubber according to the requirements in paragraphs (a)(4)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the presence of water flow to the scrubber.

(ii) You must conduct monthly visual inspections of the system ductwork and scrubber unit for leaks.

(iii) You must conduct inspections of the interior of the scrubber to determine the structural integrity and condition of the demister and spray nozzle every 12 months.

(b) For each wet scrubber applied to emissions from a metal melting furnace at a new affected source, you must use a continuous parameter monitoring system (CPMS) to measure and record the 3-hour average pressure drop and scrubber water flow rate.

(c) For each electrostatic precipitator applied to emissions from a metal melting furnace at a new affected source, you must measure and record the hourly average voltage and secondary current (or total power input) using a CPMS.

(d) If you own or operate an existing affected source, you may install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse as an alternative to the baghouse inspection requirements in paragraph (a)(1) of this section. If you own or operate a new affected source, you must install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse. You must install, operate, and maintain each bag leak detection system according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the requirements in paragraphs (d)(1)(i) through (vii) of this section.

(i) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means.

(iii) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, you also must adjust the alarm delay time.

(v) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the monitoring plan required by paragraph (d)(2) of this section.

(vi) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

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

(2) You must prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in your O&M plan. You must operate and maintain each bag leak detection system according to the plan at all times. Each plan must address all of the items identified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system.

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

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

(iv) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list.

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

(vi) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required in paragraph (d)(3) of this section.

(3) In the event that a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. You must record the date and time of each valid alarm, the time you initiated corrective action, the correction action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to:

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

(ii) Sealing off defective bags or filter media.

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

(iv) Sealing off a defective baghouse department.

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

(vi) Shutting down the process producing the particulate emissions.

(e) You must make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). You must repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. You must record the date and results of each inspection and the date of repair of any defect or deficiency.

(f) You must install, operate, and maintain each CPMS or other measurement device according to your O&M plan. You must record all information needed to document conformance with these requirements.

(g) In the event of an exceedance of an established emissions limitation (including an operating limit), you must restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. You must record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.

(h) If you choose to comply with an emissions limit in §63.10895(c) using emissions averaging, you must calculate and record for each calendar month the pounds of PM or total metal HAP per ton of metal melted from the group of all metal melting furnaces at your foundry. You must calculate and record the weighted average pounds per ton emissions rate for the group of all metal melting furnaces at the foundry determined from the performance test procedures in §63.10898(d) and (e).

§ 63.10898 What are my performance test requirements?

(a) You must conduct a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace or group of all metal melting furnaces that is subject to an emissions limit in §63.10895(c) and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions in §63.10895(e). You must conduct the test within 180 days of your compliance date and report the results in your notification of compliance status.

(1) If you own or operate an existing iron and steel foundry, you may choose to submit the results of a prior performance test for PM or total metal HAP that demonstrates compliance with the applicable emissions limit for a metal melting furnace or group of all metal melting furnaces provided the test was conducted within the last 5 years using the methods and procedures specified in this subpart and either no process changes have been made since the test, or you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance with the applicable emissions limit despite such process changes.

(2) If you own or operate an existing iron and steel foundry and you choose to submit the results of a prior performance test according to paragraph (a)(1) of this section, you must submit a written notification to the Administrator of your intent to use the previous test data no later than 60 days after your compliance date. The notification must contain a full copy of the performance test and contain information to demonstrate, if applicable, that either no process changes have been made since the test, or that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite such process changes.

(3) If you have an electric induction furnace equipped with an emissions control device at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the furnaces are similar with respect to the type of emission control device that is used, the composition of the scrap charged, furnace size, and furnace melting temperature.

(4) If you have an uncontrolled electric induction furnace at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the test results are prior to any control device and the electric induction furnaces are similar with respect to the composition of the scrap charged, furnace size, and furnace melting temperature.

(5) For electric induction furnaces that do not have emission capture systems, you may install a temporary enclosure for the purpose of representative sampling of emissions. A permanent enclosure and capture system is not required for the purpose of the performance test.

(b) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in §63.10895(c) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time you elect to change an operating limit or make a process change likely to increase HAP emissions.

(c) You must conduct each performance test according to the requirements in §63.7(e)(1), Table 1 to this subpart, and paragraphs (d) through (g) of this section.

(d) To determine compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) for a metal melting furnace in a lb/ton of metal charged format, compute the process-weighted mass emissions (E^p) for each test run using Equation 1 of this section:

$$E_p = \frac{C \times Q \times T}{P \times K} \qquad (Eq.\ 1)$$

Where:

E_p= Process-weighted mass emissions rate of PM or total metal HAP, pounds of PM or total metal HAP per ton (lb/ton) of metal charged;

C = Concentration of PM or total metal HAP measured during performance test run, grains per dry standard cubic foot (gr/dscf);

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per hour (dscf/hr);

T = Total time during a test run that a sample is withdrawn from the stack during melt production cycle, hr;

P = Total amount of metal charged during the test run, tons; and

K = Conversion factor, 7,000 grains per pound.

(e) To determine compliance with the applicable emissions limit in §63.10895(c) for a group of all metal melting furnaces using emissions averaging,

(1) Determine and record the monthly average charge rate for each metal melting furnace at your iron and steel foundry for the previous calendar month; and

(2) Compute the mass-weighted PM or total metal HAP using Equation 2 of this section.

$$E_c = \frac{\sum_{i=1}^{n} \left(E_{pi} \times T_{ti}\right)}{\sum_{i=1}^{n} T_{ti}} \qquad (Eq.\ 2)$$

Where:

E_C= The mass-weighted PM or total metal HAP emissions for the group of all metal melting furnaces at the foundry, pounds of PM or total metal HAP per ton of metal charged;

E_{pi}= Process-weighted mass emissions of PM or total metal HAP for individual emission unit i as determined from the performance test and calculated using Equation 1 of this section, pounds of PM or total metal HAP per ton of metal charged;

T_{ti}= Total tons of metal charged for individual emission unit i for the calendar month prior to the performance test, tons; and

n = The total number of metal melting furnaces at the iron and steel foundry.

(3) For an uncontrolled electric induction furnace that is not equipped with a capture system and has not been previously tested for PM or total metal HAP, you may assume an emissions factor of 2 pounds per ton of PM or 0.13 pounds of total metal HAP per ton of metal melted in Equation 2 of this section instead of a measured test value. If the uncontrolled electric induction furnace is equipped with a capture system, you must use a measured test value.

(f) To determine compliance with the applicable PM or total metal HAP emissions limit for a metal melting furnace in §63.10895(c) when emissions from one or more regulated furnaces are combined with other non-regulated emissions sources, you may demonstrate compliance using the procedures in paragraphs (f)(1) through (3) of this section.

(1) Determine the PM or total metal HAP process-weighted mass emissions for each of the regulated streams prior to the combination with other exhaust streams or control device.

(2) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before and after the control device and calculate the mass removal efficiency of the control device using Equation 3 of this section.

$$\%\ \text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad (\text{Eq. 3})$$

Where:

E_i= Mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr;

E_o= Mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(3) Meet the applicable emissions limit based on the calculated PM or total metal HAP process-weighted mass emissions for the regulated emissions source using Equation 4 of this section:

$$E_{p1\_\_\_} E_{p1} \times \left(1 - \frac{\%\ \text{reduction}}{100}\right) \qquad (\text{Eq. 4})$$

Where:

$E_{p1released}$= Calculated process-weighted mass emissions of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, pounds of PM or total metal HAP per ton of metal charged; and

E_{p1i}= Process-weighted mass emissions of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, pounds of PM or total metal HAP per ton of metal charged.

(g) To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time or other situations that are not expressly considered in paragraphs (d) through (f) of this section, you must submit a site-specific test plan to the Administrator for approval according to the requirements in §63.7(c)(2) and (3).

(h) You must conduct each opacity test for fugitive emissions according to the requirements in §63.6(h)(5) and Table 1 to this subpart.

(i) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.10895(e) no less frequently than every 6 months and each time you make a process change likely to increase fugitive emissions.

(j) In your performance test report, you must certify that the capture system operated normally during the performance test.

(k) You must establish operating limits for a new affected source during the initial performance test according to the requirements in Table 2 of this subpart.

(l) You may change the operating limits for a wet scrubber, electrostatic precipitator, or baghouse if you meet the requirements in paragraphs (l)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your plan to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.10895(c).

(3) Establish revised operating limits according to the applicable procedures in Table 2 to this subpart.

§ 63.10899 What are my recordkeeping and reporting requirements?

(a) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(b) In addition to the records required by 40 CFR 63.10, you must keep records of the information specified in paragraphs (b)(1) through (13) of this section.

(1) You must keep records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(2) If you are subject to the requirements for a site-specific plan for mercury under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (c) of this section.

(3) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If your scrap provider is a broker, you must maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program.

(4) You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(5) You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provide information on the binder or coating materials used.

(6) You must keep records of monthly metal melt production for each calendar year.

(7) You must keep a copy of the operation and maintenance plan as required by §63.10896(a) and records that demonstrate compliance with plan requirements.

(8) If you use emissions averaging, you must keep records of the monthly metal melting rate for each furnace at your iron and steel foundry, and records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces required by §63.10897(h).

(9) If applicable, you must keep records for bag leak detection systems as follows:

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

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

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

(10) You must keep records of capture system inspections and repairs as required by §63.10897(e).

(11) You must keep records demonstrating conformance with your specifications for the operation of CPMS as required by §63.10897(f).

(12) You must keep records of corrective action(s) for exceedances and excursions as required by §63.10897(g).

(13) You must record the results of each inspection and maintenance required by §63.10897(a) for PM control devices in a logbook (written or electronic format). You must keep the logbook onsite and make the logbook available to the Administrator upon request. You must keep records of the information specified in paragraphs (b)(13)(i) through (iii) of this section.

(i) The date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters.

(ii) The date and time of each recorded action for a wet or dry electrostatic precipitator (including ductwork), the results of each inspection, and the results of any maintenance performed for the electrostatic precipitator.

(iii) The date and time of each recorded action for a wet scrubber (including ductwork), the results of each inspection, and the results of any maintenance performed on the wet scrubber.

(c) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The reports must include, at a minimum, the following information as applicable:

(1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;

(2) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

(3) Summary information on any deviation from the pollution prevention management practices in §§63.10885 and 63.10886 and the operation and maintenance requirements §63.10896 and the corrective action taken.

(d) You must submit written notification to the Administrator of the initial classification of your new or existing affected source as a large iron and steel facility as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d) or (e), as applicable.

§ 63.10900 What parts of the General Provisions apply to my large foundry?

(a) If you own or operate a new or existing affected source that is classified as a large foundry, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 of this subpart.

(b) If you own or operator a new or existing affected source that is classified as a large foundry, your notification of compliance status required by §63.9(h) must include each applicable certification of compliance, signed by a responsible official, in Table 4 of this subpart.

Other Requirements and Information

§ 63.10905 Who implements and enforces this subpart?

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

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (6) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g).

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9).

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

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

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

(6) Approval of a local, State, or national mercury switch removal program under §63.10885(b)(2).

§ 63.10906 What definitions apply to this subpart?

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

Annual metal melt capacity means the lower of the total metal melting furnace equipment melt rate capacity assuming 8,760 operating hours per year summed for all metal melting furnaces at the foundry or, if applicable, the maximum permitted metal melt production rate for the iron and steel foundry calculated on an annual basis. Unless otherwise specified in the permit, permitted metal melt production rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the furnace(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted metal melt production rate.

Annual metal melt production means the quantity of metal melted in a metal melting furnace or group of all metal melting furnaces at the iron and steel foundry in a given calendar year. For the purposes of this subpart, metal melt production is determined on the basis on the quantity of metal charged to each metal melting furnace; the sum of the metal melt production for each furnace in a given calendar year is the annual metal melt production of the foundry.

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

Binder chemical means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: Duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Chlorinated plastics means solid polymeric materials that contain chlorine in the polymer chain, such as polyvinyl chloride (PVC) and PVC copolymers.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by a metal melting furnace.

Cupola means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emissions limitation (including operating limits), management practice, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit; or

(3) Fails to meet any emissions limitation (including operating limits) or management standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Electric arc furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths.

Electric induction furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted though resistance heating by an electric current that is induced in the metal by passing an alternating current through a coil surrounding the metal charge or surrounding a pool of molten metal at the bottom of the vessel.

Exhaust stream means gases emitted from a process through a conveyance as defined in this subpart.

Foundry operations mean all process equipment and practices used to produce metal castings for shipment. *Foundry operations* include: Mold or core making and coating; scrap handling and preheating; metal melting and inoculation; pouring, cooling, and shakeout; shotblasting, grinding, and other metal finishing operations; and sand handling.

Free liquids means material that fails the paint filter liquids test by EPA Method 9095B, Revision 2, November 1994 (incorporated by reference—see §63.14). That is, if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains *free liquids* .

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source.

Furfuryl alcohol warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated as a furfuryl alcohol warm box system by the foundry industry.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities, operations that only produce non-commercial castings, and operations associated with nonferrous metal production are not included in this definition.

Large foundry means, for an existing affected source, an iron and steel foundry with an annual metal melt production greater than 20,000 tons. For a new affected source, *large foundry* means an iron and steel foundry with an annual metal melt capacity greater than 10,000 tons.

Mercury switch means each mercury-containing capsule or switch assembly that is part of a convenience light switch mechanism installed in a vehicle.

Metal charged means the quantity of scrap metal, pig iron, metal returns, alloy materials, and other solid forms of iron and steel placed into a metal melting furnace. Metal charged does not include the quantity of fluxing agents or, in the case of a cupola, the quantity of coke that is placed into the metal melting furnace.

Metal melting furnace means a cupola, electric arc furnace, electric induction furnace, or similar device that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making greensand molds or cores.

Motor vehicle means an automotive vehicle not operated on rails and usually is operated with rubber tires for use on highways.

Motor vehicle scrap means vehicle or automobile bodies, including automobile body hulks, that have been processed through a shredder. *Motor vehicle scrap* does not include automobile manufacturing bundles, or miscellaneous vehicle parts, such as wheels, bumpers, or other components that do not contain mercury switches.

Nonferrous metal means any pure metal other than iron or any metal alloy for which an element other than iron is its major constituent in percent by weight.

On blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate volatile impurities or other tramp materials by direct flame heating or similar means of heating. Scrap dryers, which solely remove moisture from metal scrap, are not considered to be scrap preheaters for purposes of this subpart.

Scrap provider means the person (including a broker) who contracts directly with an iron and steel foundry to provide motor vehicle scrap. Scrap processors such as shredder operators or vehicle dismantlers that do not sell scrap directly to a foundry are not *scrap providers* .

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH.

Small foundry means, for an existing affected source, an iron and steel foundry that has an annual metal melt production of 20,000 tons or less. For a new affected source, *small foundry* means an iron and steel foundry that has an annual metal melt capacity of 10,000 tons or less.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations of compounds of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A–8). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart.

Table 1 to Subpart ZZZZZ of Part 63—Performance Test Requirements for New and Existing Affected Sources Classified as Large Foundries

As required in §63.10898(c) and (h), you must conduct performance tests according to the test methods and procedures in the following table:

For. . .	You must. . .	According to the following requirements. . .
1. Each metal melting furnace subject to a PM or total metal HAP limit in §63.10895(c)	a. Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A (40 CFR part 60, appendix A) b. Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) c. Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B (40 CFR part 60, appendix A).[1] d. Measure moisture content of the stack gas using EPA Method 4 (40 CFR part 60, A) e. Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable or total metal HAP concentration using EPA Method 29 (40 CFR part 60, appendix A)	Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. i. Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch. ii. For Method 29, only the measured concentration of the listed metal HAP analytes that are present at concentrations exceeding one-half the quantification limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantification limit of the analytical method, the concentration of those analytes is assumed to be zero for the purposes of calculating the total metal HAP.
		iii. A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test.

		iv. For cupola metal melting furnaces, sample PM or total metal HAP only during times when the cupola is on blast.
		v. For electric arc and electric induction metal melting furnaces, sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping.
		vi. Determine and record the total combined weight of tons of metal charged during the duration of each test run. You must compute the process-weighted mass emissions of PM according to Equation 1 of §63.10898(d) for an individual furnace or Equation 2 of §63.10898(e) for the group of all metal melting furnaces at the foundry.
2. Fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in §63.10895(e)	a. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A–4) and 40 CFR 63.6(h)(5)	i. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.
		ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests.

	b. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A–7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A–4)	i. The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests.

[1]You may also use as an alternative to EPA Method 3B (40 CFR part 60, appendix A), the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses" (incorporated by reference—see §63.14).

Table 2 to Subpart ZZZZZ of Part 63—Procedures for Establishing Operating Limits for New Affected Sources Classified as Large Foundries

As required in §63.10898(k), you must establish operating limits using the procedures in the following table:

For . . .	You must . . .
1. Each wet scrubber subject to the operating limits in §63.10895(d)(1) for pressure drop and scrubber water flow rate.	Using the CPMS required in §63.10897(b), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the average pressure drop and average scrubber water flow rate for all the valid sampling runs in which the applicable emissions limit is met.
2. Each electrostatic precipitator subject to operating limits in §63.10895(d)(2) for voltage and secondary current (or total power input).	Using the CPMS required in §63.10897(c), measure and record voltage and secondary current (or total power input) in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the minimum hourly average voltage and secondary current (or total power input) from all the readings for each valid sampling run in which the applicable emissions limit is met.

Table 3 to Subpart ZZZZZ of Part 63—Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries

As required in §63.10900(a), you must meet each requirement in the following table that applies to you:

Citation	Subject	Applies to large foundry?	Explanation
63.1	Applicability	Yes.	
63.2	Definitions	Yes.	
63.3	Units and abbreviations	Yes.	
63.4	Prohibited activities	Yes.	
63.5	Construction/reconstruction	Yes.	
63.6(a)–(g)	Compliance with standards and maintenance requirements	Yes.	
63.6(h)	Opacity and visible emissions standards	Yes.	
63.6(i)(i)–(j)	Compliance extension and Presidential compliance exemption	Yes.	
63.7(a)(3), (b)–(h)	Performance testing requirements	Yes.	
63.7(a)(1)–(a)(2)	Applicability and performance test dates	No	Subpart ZZZZZ specifies applicability and performance test dates.
63.8(a)(1)–(a)(3), (b), (c)(1)–(c)(3), (c)(6)–(c)(8), (d), (e), (f)(1)–(f)(6), (g)(1)–(g)(4)	Monitoring requirements	Yes.	
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No.	
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No.	
63.8(c)(5)	Continuous opacity monitoring system (COMS) minimum procedures	No.	
63.8(g)(5)	Data reduction	No.	
63.9	Notification requirements	Yes.	

63.10(a), (b)(1)–(b)(2)(xii) – (b)(2)(xiv), (b)(3), (d)(1)–(2), (e)(1)–(2), (f)	Recordkeeping and reporting requirements	Yes.	
63.10(c)(1)–(6), (c)(9)–(15)	Additional records for continuous monitoring systems	No.	
63.10(c)(7)–(8)	Records of excess emissions and parameter monitoring exceedances for CMS	Yes.	
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes.	
63.10(e)(3)	Excess emissions reports	Yes.	
63.10(e)(4)	Reporting COMS data	No.	
63.11	Control device requirements	No.	
63.12	State authority and delegations	Yes.	
63.13–63.16	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality. Performance track provisions	Yes.	

Table 4 to Subpart ZZZZZ of Part 63—Compliance Certifications for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

As required by §63.10900(b), your notification of compliance status must include certifications of compliance according to the following table:

For. . .	Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official:
Each new or existing affected source classified as a large foundry and subject to scrap management requirements in §63.10885(a)(1) and/or (2)	"This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)" and/or "This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2)."
Each new or existing affected source classified as a large foundry and subject to mercury switch removal requirements in §63.10885(b)	"This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1)" and/or "This facility participates in and purchases motor vehicles scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA

	Administrator according to §63.10885(b)(2) and have prepared a plan for participation in the EPA approved program according to §63.10885(b)(2)(iv)" and/or "The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches" and/or "This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4)."
Each new or existing affected source classified as a large foundry and subject to §63.10886	"This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886."
Each new or existing affected source classified as a large foundry and subject to §63.10895(b)	"This facility operates a capture and collection system for each emissions source subject to this subpart according to §63.10895(b)."
Each existing affected source classified as a large foundry and subject to §63.10895(c)(1)	"This facility complies with the PM or total metal HAP emissions limit in §63.10895(c) for each metal melting furnace or group of all metal melting furnaces based on a previous performance test in accordance with §63.10898(a)(1)."
Each new or existing affected source classified as a large foundry and subject to §63.10896(a)	"This facility has prepared and will operate by an operation and maintenance plan according to §63.10896(a)."
Each new or existing (if applicable) affected source classified as a large foundry and subject to §63.10897(d)	"This facility has prepared and will operate by a site-specific monitoring plan for each bag leak detection system and submitted the plan to the Administrator for approval according to §63.10897(d)(2)."

Attachment B

Bahr Brothers Manufacturing, Inc.
2545 Lincoln Boulevard
Marion, Indiana 46952

Title 40: Protection of Environment

Part 63 - National Emission Standards for Hazardous Air Pollutants

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Permit No. F053-31902-00022

Title 40: Protection of Environment
PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:

C_i= concentration of CO or formaldehyde at the control device inlet,

C_o= concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209\ F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:

F_o= Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c= Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:

X_{co2}= CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 − 15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_x and SO_2 gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:

%CO_2= Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2 at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

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

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

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

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

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

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_x (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

Table 1ato Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1bto Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75	Comply with any operating limitations approved by the Administrator.

percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR.	

[76 FR 12867, Mar. 9, 2011]

Table 2ato Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at	

	15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2bto Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI	a. Limit concentration of CO in the stationary RICE	

RICE >500 HP	exhaust to 23 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of	

	operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

Table 2dto Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to

		exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever	

	comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and	

	belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O_2; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	

	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years,

emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE		whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O_2at the inlet and outlet of the control device; and	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[a](incorporated by reference, see §63.14). Measurements to determine O_2must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[ab](incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.

		points; and		
		ii. Measure O_2at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O_2concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	(a) Measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure	(1) Method 4 of 40	(a) Measurements to

		moisture content of the stationary RICE exhaust at the sampling port location; and	CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO Concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour longer runs.

[a]You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

[b]You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

[c]You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction;

emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year		and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-	a. Limit the concentration of CO, and not using	i. The average CO concentration determined from the initial performance test is less than or

emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	oxidation catalyst	equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test

		comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of formaldehyde and not using NSCR	i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating

		parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.

13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[76 FR 12867, Mar. 9, 2011]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a] and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a] and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and

of HAP		
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary	a. Reduce formaldehyde	i. Collecting the approved operating

RICE >500 HP located at a major source of HAP	emissions and not using NSCR	parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the approved

		operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and

		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or

	oxidation catalyst or NSCR	that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[76 FR 12870, Mar. 9, 2011]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4) i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations.	

		i. Semiannually according to the requirements in §63.6650(b). i. Semiannually according to the requirements in §63.6650(b).	
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and i. Annually, according to the requirements in §63.6650.	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and i. See item 2.a.i.	
		c. Any problems or errors suspected with the meters. i. See item 2.a.i.	

[75 FR 51603, Aug. 20, 2010]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	

§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only

			applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation	Yes.	

	and maintenance requirements		
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in	

		§63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	

§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i)(C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	

§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

Attachment C

Bahr Brothers Manufacturing, Inc.
2545 Lincoln Boulevard
Marion, Indiana 46952

Title 40: Protection of Environment

Part 60 - New Source Performance Standards

Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

Source: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, “Mineral processing plant”).

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §60.735(b) that is less than 90 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in §60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a FESOP Renewal

Source Background and Description

Source Name:	**Bahr Brothers Manufacturing, Inc.**
Source Location:	**2545 Lincoln Boulevard, Marion, Indiana 46952**
County:	**Grant**
SIC Code:	**3321(Gray and Ductile Iron Foundries) and 3325 (Steel Foundries)**
Operation Permit No.:	**F 053-31902-00022**
Permit Reviewer:	**Janet Mobley**

On December 3, 2012, the Office of Air Quality (OAQ) had a notice published in the Marion Chronicle Tribune, Marion, Indiana, stating that Bahr Brothers Manufacturing, Inc. had applied for a FESOP Renewal to continue to operate their ductile iron and steel. The notice also stated that the OAQ proposed to issue a FESOP Renewal for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On December 12, 2012, Mr. Joseph VanCamp, consultant for the source, submitted comments to IDEM, OAQ on the draft FESOP Renewal.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

The description of the process flow for the indoor New Sand Tank identified as EU D in Section A.2(h)(1)(D) is not quite correct. The paragraph stating "Then the virgin sand from the Indoor New Sand Tank (EU D) is sent to either the Bi Room Sand Tank (EU A), the Floor Sand Tank (EU B) or the Line Sand Tank (EU C). Sand is stored in these sand tanks until needed in the mixers" is incorrect and should be replaced with the following paragraph:

> "Then the virgin sand from the Indoor New Sand Tank (EU D) is fed by gravity to the Core Room Mixer (EU 10). This is the point in the facility where new silica sand is introduced into the sand system. Reclaimed sand from the mechanical and thermal sand reclaimers is eventually sent to either the indoor Bi Room Sand Tank (EU A), the indoor Floor Sand Tank (EU B) or the indoor Line Sand Tank (EU C) for use in the associated mixers."
>
> This description change should also carry through to the Section D emission unit description.

Response to Comment 1:

IDEM agrees with the recommended changes, as proposed in the comment. The permit has been revised as requested above:

(D) One (1) indoor New sand tank, identified as EU D, construction date unknown, and storage capacity of 20 tons, with Bin Top Filter and Aqua Filter for control.

Note: The flow of virgin sand begins with a tanker truck that pneumatically blows sand into the Indoor New Sand tank (EU D), which the particulate fines from this sand handling are sent to the aqua filter. An aqua filter (which is a tote tank with water) with a hose, controls the fines and PM generated during the transport of new virgin sand into this tank and from the transfer of reclaimed sand back to the following outdoor sand tanks. Eventually, a sludge is created in the aqua filter and is disposed of by an outside hauler. A control efficiency of 90% is used for the controlled calculations for the sand tanks/silos.

Then the virgin sand from the Indoor New Sand tank (EU D) is **fed by gravity to the Core Room Mixer (EU 10). This is the point in the facility where new silica sand is introduced into the sand system. Reclaimed sand from the mechanical and thermal sand reclaimers is eventually sent** to either the **indoor** Bi Room Sand tank (EU A), the **indoor** Floor Sand tank (EU B) or the **indoor** Line Sand tank (EU C) **for use in the associated**. ~~Sand is stored in these sand tanks until needed in the~~ mixers.

Comment 2:

The description of the process flow for the Core Room Mixer (EU 10) in Section A.2(h)(4) is not quite correct. The paragraph stating "The Core Room Mixer does not have a closed storage tank for sand but is fed resin-bonded sand from bags" is incorrect and should be replaced with the following paragraph:

"The Core Room Mixer does not have a closed storage tank for sand but is instead fed virgin silica sand directly from the Indoor New Sand Tank (EU D). An aqua filter controls the fines and PM generated during the transport of new virgin sand into this mixer".

This description change should also carry through to the Section D emission unit description.

Response to Comment 2:

IDEM agrees with the recommended changes, as proposed in the comment. The permit has been revised as requested above:

(4) One (1) enclosed core room mixer, identified as EU10, constructed in 1991, with a maximum throughput of 3.0 tons of sand per hour, no control, exhausting inside the building.

The Core Room mixer does not have a closed storage tank for sand but is ~~fed resin-bonded sand from bags.~~ **instead fed virgin silica sand directly from the Indoor New Sand Tank (EU D). An aqua filter controls the fines and PM generated during the transport of new virgin sand into this mixer".**

Comment 3:

Exhaust stack 5 should be identified with the baghouse controlling the natural gas-fired thermal sand reclaimer (EU 19) identified in Section A.2(h)(8). This baghouse does exhaust to atmosphere through a stack (S5).

Response to Comment 3:

IDEM agrees with the recommended changes, as proposed in the comment. The permit has been revised as requested above:

(8) One (1) natural gas-fired thermal sand reclaimer, identified as EU19, constructed in 2004, with a maximum throughput of 0.25 tons of sand per hour and a heat rate of 0.25 MMBtu/hr, utilizing one (1) baghouse for particulate matter control~~.~~ **,exhausting to the atmosphere through stack (S5).**

Comment 4:

Bahr Brothers signed an Administrative Consent Order (ACO) with EPA Region 5 on November 15, 2012, regarding the compliance status of the two natural gas-fired thermal sand reclaimers (EU 6 and EU 19). This ACO required Bahr Brothers to incorporate NSPS Subpart 3U into their FESOP since it was deemed to apply to these thermal sand reclaimers. NSPS Subpart 3U has already been incorporated into the draft FESOP Renewal in Section E.3. However, the ACO specifically identified certain compliance monitoring requirements that must be incorporated into the FESOP through a SPM submitted within 180 days of the effective date of the ACO. The source asked if it was possible to just add these requirements now to this FESOP Renewal as opposed to reopening the permit later through a separate SPM and attached the ACO language that was signed by the EPA on November 15th. Item #43 contains the reference to incorporate the compliance monitoring requirements in Sections 38 through 42 of the ACO.

Response to Comment 4:

On December 13, 2012, the permit writer advised the source to submit a separate SPM application to comply with the language in the Administrative Consent Order (ACO) and the Order is not being incorporated into this renewal.

IDEM Contact

(a) Questions regarding this proposed FESOP Renewal can be directed to Janet Mobley at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5373 or toll free at 1-800-451-6027 extension 4-5373.

(b) A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and New Source Review and Federally Enforceable State Operating Permit Renewal

Source Background and Description

Source Name:	**Bahr Brothers Manufacturing, Inc.**
Source Location:	**2545 Lincoln Boulevard, Marion, Indiana 46952**
County:	**Grant**
SIC Code:	**3321 (Gray and Ductile Iron Foundries) and 3325 (Steel Foundries)**
Permit Renewal No.:	**F053-31902-00022**
Permit Reviewer:	**Janet Mobley**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Bahr Brothers Manufacturing, Inc. relating to the operation of a ductile iron and steel foundry. On December 16, 2011, Bahr Brothers Manufacturing, Inc. submitted an application to the OAQ requesting to renew its operating permit. Bahr Brothers Manufacturing, Inc. was issued its first FESOP (F053-11804-00022) on September 20, 2007.

During the review period, Bahr Brothers Manufacturing, Inc. submitted an application on May 21, 2012, for approval to add one replacement sand mixer and two new electric induction melting furnaces to its facility. The addition of the two new furnaces will allow the facility to melt metal more efficiently than with the existing furnaces. Melting a higher batch capacity in the existing furnaces wears the lining out much more quickly which results in higher operating costs and downtime.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted and new emission units:

Foundry Processes:

(a) One (1) charge handling process, identified as EU1, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(b) One (1) electric induction melting process, identified as EU2, constructed in 1978, consisting of two (2) large electric induction melting furnaces each rated at 1,750 pounds of metal per hour, with no control, exhausting inside the building.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU2, are considered affected facilities because they process iron and steel at an area source.

(c) One (1) electric induction melting process, identified as EU20, consisting of two (2) large electric induction melting furnaces, with no control, exhausting inside the building:

(1) One (1) furnace, labeled as the 550 pound batch furnace, with a capacity that can melt 550 pounds of metal every 17 minutes, with a maximum process capacity rated at 1,941 pounds of metal per hour, with no control.

(2) One (1) furnace, labeled as the 1,650 pound furnace with a capacity that can melt 1,650 pounds of metal every 50 minutes, rated at 1,980 pounds of metal per hour, with no control.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU20, are

considered affected facilities because they process iron and steel at an area source.

Note 1: The maximum throughput capacity of each of the two (2) electric induction melting furnaces is limited by a single power supply such that only one (1) furnace can operate at a time. Additionally, the maximum throughput capacities of the charge handling, the pouring and casting, casting cooling, Inoculation (with Ferrosilicon) and castings shakeout operations are each dependent on the maximum capacity of the electric induction melting process (EU2 and EU20), accordingly.

For the electric induction melting process, identified as EU2 and EU20, the maximum throughput is 1.865 tons of metal per hour. The capacity of one electric induction melting furnace (EU2) rated at 1,750 pounds of metal per hour and the capacity of the larger of the two electric induction melting furnaces (EU20) of 1980 equals 3730 pounds of metal throughput divided by 2000 pounds per ton which equals 1.865 tons of metal per hour.

Note 2: The melting process is for both the iron and steel foundries and no furnace is specifically assigned to a particular type of metal. The furnaces are interchangeable and capable of processing either metal.

(d) One (1) pouring/casting process, identified as EU3, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

Note: The pouring/casting process is completely separate from the casting cooling process at this facility, so separate emission factors were used in the calculations.

(e) One (1) casting cooling process, identified as EU4, constructed in 1970, with a maximum throughput of 1.865 tons of metal per hour, no control, exhausting inside the building.

(f) One (1) shakeout process, identified as EU5, constructed in 1970, with a maximum throughput of 1.865 tons of metal per year, no control, exhausting inside the building.

(g) Inoculation (with Ferrosilicon) process.

Note: The Ferrosilicon products used at the facility in the inoculation process are comprised mainly of silicon and not Magnesium.

Sand Handling/Transport System:

(h) Enclosed Sand System, pneumatically conveyed, with a maximum throughput capacity of 638.60 tons per year (or 40.5 tons per hour) of sand and maximum throughput capacity of 24,090 tons per year (or 2.75 tons per hour) for the reclaimers, consisting of the following units:

(1) Seven (7) sand silos (also called tanks) consisting of the following:

(A) One (1) indoor Bi-Room sand tank, identified as EU A, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 20 tons, construction date unknown, with Bin Top Filter.

(B) One (1) indoor Floor sand tank, identified as EU B, with maximum capacity of 15.0 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(C) One (1) indoor Line sand tank, identified as EU C, with maximum capacity of 7.5 tons of sand per hour and storage capacity of 35 tons, construction date unknown, with Bin Top Filter.

(D) One (1) indoor New sand tank, identified as EU D, construction date unknown, and storage capacity of 56 tons, with Bin Top Filter and Aqua Filter for control.

Note: The flow of virgin sand begins with a tanker truck that pneumatically blows sand into the Indoor New Sand tank (EU D), which the particulate fines from this sand handling are sent to the aqua filter. An aqua filter (which is a tote tank with water) with a hose, controls the fines and PM generated during the transport of new virgin sand into this tank and from the transfer of reclaimed sand back to the following outdoor sand tanks (EU E and EU F). Eventually a sludge is created in the aqua filter and is disposed of by an outside hauler. A control efficiency of 90% is used for the controlled calculations for the sand tanks/silos.

Then the virgin sand from the Indoor New Sand tank (EU D) is sent to either the Bi Room Sand tank (EU A), the Floor Sand tank (EU B) or the Line Sand tank (EU C). Sand is stored in these sand tanks until needed in the mixers.

(E) One (1) outdoor sand tank, identified as EU E, construction date unknown, storage capacity of 45 tons, with the Aqua filter as control.

(F) One (1) outdoor sand tank, identified as EU F, construction date unknown, storage capacity of 56 tons, with the Aqua filter as control.

(G) One (1) indoor Dirty sand tank, identified as EU G, with maximum capacity of 1.0 tons of sand per hour and storage capacity of 56 tons, construction date unknown, with Bin Top Filter.

The outdoor sand tanks (EU E and EU F) and indoor sand tank (EU G) are associated with the sand reclaimers. The outdoor sand tanks also use the aqua filter for control because the pneumatic transfer of sand being returned from inside the plant to these two sand tanks is also connected to the aqua filter.

Note: The construction dates are stated as unknown but presumed to be constructed when the sand system was installed.

(2) One (1) enclosed floor mixer, identified as EU8, constructed in 1999, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Floor sand tank, identified as EU B is associated with the floor mixer, identified as EU8.

(3) One (1) enclosed bi-room mixer, identified as EU9, approved for construction in 2012, with a maximum throughput of 15.0 tons of sand per hour, no control, exhausting inside the building.

The indoor Bi-Room sand tank, identified as EU A, is associated with this bi-room mixer, identified as EU9.

Note: The new replacement unit kept the same ID number as the previous unit but has a higher capacity. The existing unit has a capacity of 3.0 tons/hour of sand.

(4) One (1) enclosed core room mixer, identified as EU10, constructed in 1991, with a maximum throughput of 3.0 tons of sand per hour, no control, exhausting inside the building.

The Core Room mixer does not have a closed storage tank for sand but new sand is fed by gravity to the core room mixer. This is the point in the facility where new sand is introduced into the entire sand handling system after the Indoor New Sand Tank (EU D).

(5) One (1) enclosed line mixer, identified as EU11, constructed in 1981, with a maximum throughput of 7.5 tons of sand per hour, no control, exhausting inside the building.

The indoor Line sand tank, identified as EU C, is associated with the line mixer, identified as EU11.

Note: The mixers are completely enclosed so there are no PM emissions that generate from the actual "wet " mixing process but are generated from the sand handling. Mixing time ranges from 10 minutes to approximately 25 minutes inside the mixer which is a closed process.

(6) One (1) natural gas-fired thermal sand reclaimer, identified as EU6, constructed in 1993, with a maximum throughput of 1.0 tons sand per hour and a heat input rate of 1.0 million (MM) British thermal units (Btu) per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 1.

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU6) is an affected facility.

(7) One (1) mechanical sand reclaimer, identified as EU7, constructed in 1993, with a maximum throughput of 1.5 tons sand per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack 2.

(8) One (1) natural gas-fired thermal sand reclaimer, identified as EU19, constructed in 2004, with a maximum throughput of 0.25 tons of sand per hour and a heat rate of 0.25 MMBtu/hr, utilizing one (1) baghouse for particulate matter control.

Under 40 CFR 60, Subpart UUU, the natural gas-fired thermal sand reclaimer (EU19) is an affected facility.

Notes: After the shakeout process, the spent sand molds and cores go through a mechanical reclamation process (EU7) to remove large chunks. The cleaned up sand is then pneumatically transported back to one of the smaller closed storage tanks for the mixers (the Line Mixer or EU11). Some of the spent sand is also sent to one of two thermal sand reclamation units for further processing to help breakdown some of the resin binders so that the sand can be reused. The cleaned up sand from the larger thermal sand reclaimer (EU6) is returned to one of the two large outdoor sand silos, which in turn transports sand pneumatically to the smaller closed storage tank for the Floor Sand Mixer (EU8). The cleaned up sand from the smaller thermal sand reclaimer (EU19) is returned to one of the two large outdoor sand silos, which in turn transports the sand pneumatically to the smaller closed storage tank for the Bi-Room Sand Mixer (EU9).

Blasting Process:

(i) Blasting operations consisting of the following:

(1) One (1) steel shot Metfin table blast machine # 1, identified as EU13, constructed in 2008, with a maximum process rate of 2238 lb/hour or 1.12 tons of metal per hour (which is 60% of the metal throughput), utilizing one (1) baghouse for particulate matter control, and exhausting to stack 3.

(2) One (1) steel shot pangborn table machine # 2, identified as EU14, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour (which is 20% of the metal throughput), utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

(3) One (1) steel shot wheelabrator tumble blast machine # 1, identified as EU15, constructed in 1985, with a maximum process rate of 746 lb/hour or 0.373 tons of metal per hour (which is 20% of the metal throughput), utilizing one (1) baghouse for particulate matter control, and exhausting to stack 4.

Mold/Core Painting:

(j) One (1) mold release spray, identified as EU17, constructed in 1970, utilizing a hand brushing application system, coating a maximum of 0.45 metal patterns per hour, exhausting inside the building.

(k) One (1) mold/core painting process, identified as EU18, constructed in 1980, utilizing an air atomization spray application system, coating a maximum of 10 molds per hour, exhausting inside the building.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) One (1) natural gas-fired normalize heat treat furnace, identified as EU12, with a maximum throughput of 0.44 tons per hour and a heat input rate of 3.04 MMBtu per hour.

(2) Two (2) natural gas-fired ladle preheaters, identified as EU16, each with a maximum heat input rate of 0.33 MMBtu per hour.

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(d) 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 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(e) Miscellaneous Woodworking Activities in Pattern Shop (Sawing, Cutting, Routing, Planing, etc.), utilizing one (1) baghouse for particulate matter control.

(f) Any of the following structural steel and bridge fabrication activities:

(1) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent;

(2) Using 80 tons or less of welding consumables.

(g) Paved or unpaved roads and parking lots with public access.

(h) Emergency generator as follows:

(1) One (1) natural gas-fired only emergency generator rated at (30KW) which is 40 output horsepower. The unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

Under 40 CFR 63, Subpart ZZZZ, the natural gas emergency generator engine is an affected facility.

(i) 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.

(j) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(k) Refractory storage not requiring air pollution control equipment.

(l) Equipment used exclusively for the following:

(1) Packaging lubricants and greases;

(2) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.

(m) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(n) Machining where an aqueous cutting coolant continuously floods the machining interface.

(o) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100EF) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(p) Closed loop heating and cooling systems.

(q) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(r) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.

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

(t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(u) Filter or coalescer media changeout.

(v) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

(w) A laboratory as defined in 326 IAC 2-7-1(20)(C).

Background and Description of Permitted Emission Units and New Source Construction

The source notified IDEM that a dust collector was installed to collect PM from the existing furnaces via overhead canopy hoods, from an existing sand elevator used as part of the sand shakeout and mechanical sand reclamation process and from an existing rotary rebuild welding process. The dust collector had been at the facility but had not been in use. Its purpose is to improve the indoor air quality for employees and is not part of any new unit installation.
The source also notified IDEM that the previous permit listed a diesel emergency generator <1600 horsepower but in actuality it is a natural gas-fired unit.

As part of the source modification request, the replacement mixer is a Bi-Room sand mixer that will replace the existing Bi-Room Mixer. The mixers are identical except the maximum process capacity of the new mixer is higher than the unit it is replacing and will result in a net increase in emissions. The new mixer is replacing the similar mixer and will keep the EU9 designation. The new mixer can run 500 pounds of sand per minute, equating to a maximum process capacity of 30,000 pounds per hour.

(h) One (1) bi-room mixer, identified as EU9, ~~constructed in 1991~~ **approved for construction in 2012**, with a maximum throughput of ~~3.0 tons~~ **15 tons of sand per hour, with no control, exhausting inside the building.**

Note: The previous emission calculations after control for the mixers included the use of 90% control efficiency for the mixers, even though the mixer does not have a control. The Aqua filter is used in conjunction with the sand silos. The mixers receive the benefit from the filter because it produces a cleaner sand as the new sand is added to the mixers. In this renewal it was determined that EU D has the aqua filter as a control.

The source requested the addition of two new electric induction melting furnaces to be added to the facility.

(c) One (1) electric induction melting process, identified as EU20, approved for construction in 2012, with a maximum heat input capacity of 1.865 MMBtu/hr, consisting of two (2) large electric induction melting furnaces, with no control, exhausting inside the bullding:

(1) One (1) furnace, labeled as the 550 pound batch furnace, with a capacity that can melt 550 pounds of metal every 17 minutes, with a maximum process capacity rated at 1,941 pounds of metal per hour, with no control.

(2) One (1) furnace, labeled as the 1,650 pound furnace with a capacity that can melt 1,650 pounds of metal every 50 minutes, rated at 1,980 pounds of metal per hour, with no control.

Under NESHAP ZZZZZ, the one (1) electric induction melting process consisting of two (2) large electric induction melting furnaces, identified as EU20, are considered affected facilities because they process iron and steel and are an area source.

Note: The two new electric induction melting furnaces share one power supply. Only one of the two electric induction melting furnaces can ever be operated at any one time. The company has justified in the original FESOP 053-1180-00022 issued on September 20, 2007, that the two (2) existing electric induction melting furnaces cannot

be operated simultaneously due to power supply limitations. The two existing electric induction melting furnaces (EU2) share their own dedicated power supply and only one of them can operate at a single time.

Bahr Brothers will have a total of four electric induction furnaces but the worst case scenario is that one of the two existing furnaces will operate at the same time that one of the new furnaces is in operation.

	New Emission Unit Potential to Emit (tons/year)					
Emission Unit	PM	PM-10	SO_2	VOC	CO	NO_X
2 new furnaces	62.01	30.01	0.09	5.81	26.02	0.04
1 new sand mixer	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	62.01	30.01	0.09	5.81	26.02	0.04

As a result of adding the two new furnaces the facility's maximum melt capacity increases which also increases the emissions from the associated foundry processes which include inoculation, charging, pouring/casting, casting cooling, shakeout and cleaning/finishing. The source submitted revised calculations.

In order to remain a FESOP minor source and keep the PM emissions below 100 tons per year for Title V and PSD, Bahr Brothers Manufacturing has an existing metal throughput limit and blast unit limit at the facility in this renewal.

Emission Units and Pollution Control Equipment Removed From the Source

The source has not removed any emission units from the source.

Existing Approvals

Since the issuance of the FESOP (053-11804-00022) on September 20, 2007, the source has constructed or has been operating under the following additional approvals:

(a) Administrative Amendment No. (053-26179-00022) issued on March 24, 2008.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Inoculation process:

The emission factor used in the calculations for the Inoculation process in this renewal, for PM of 4.0 lbs/ton is from EPA's FIRE Database (6.25 version) and the PM10 factor used is the same as

PM, assuming PM=PM10. The process at Bahr Brothers uses Ferrosilicon which is comprised mainly of silicon and does not use magnesium.

The source had used the PM/PM10 emission factor of 1.8 lbs/ton from AP 42 Chapter 12.10 (SCC 3-04-003-21), Table 12.10-7 Particulate Emission Factors for Ancillary Operations and Fugitive Sources at Gray Iron Foundries, 1/95, which is for Magnesium treatment which the source does not use.

Pouring/Casting (EU3) and Casting Cooling (EU4) Emission Factor Determination:

Instead of using a single emission factor for Pouring/Cooling and Pouring/Casting and to avoid double accounting of emissions, IDEM evaluated the information submitted by the source to separate these emissions. Pouring and Cooling processes (two independent and separate processes).

Pouring/Cooling is being considered the same as Pouring/Casting because this represents the emissions when the molten iron is first poured into the sand mold and the time immediately thereafter while it sits in the sand mold in the pouring area.

Process Description	SCC #	PM EF (lb/ton)	PM 10 EF (lb/ton)
Pouring/Cooling	3-04-003-18	4.20	2.06
Pouring/Casting	3-04-003-20	4.20	2.06
Castings Cooling	3-04-003-25	*	1.40

* None listed for PM (assume PM = PM-10 for Cooling process)

The Pouring/Casting process is completely separate from the Castings Cooling process at this facility. The processes are shown separately in the emission calculations so the EF for the Castings Cooling process (EU4) used is deducted from the Pouring/Cooling emission factor to arrive at the emission factors used:

The combined Pouring/Cooling/Casting PM emission factor of 4.20 lbs/ton was split out as a separate Pouring/Casting PM emission factor of 2.80 lbs/ton and a separate Castings Cooling PM emission factor of 1.40 lbs/ton.

Below summarizes the emissions factors used for this source.

Process Description	PM (lb/ton)	PM10 (lb/ton)	PM 2.5 (lb/ton)
Pouring/Casting	2.8	0.66	0.66
Castings Cooling	1.4	1.4	1.4

As for the Castings Cooling process, the EF used is 1.40 lbs/ton for both PM and PM-10 emissions as identified for SCC # 3-04-003-25).

This analysis of the emission factors was initially made in the existing permit.

Sand Handling System:

In previous permits issued, the source claimed a 90% control efficiency for the mixers because of the use of an "aqua filter". During discussions and from the information submitted during this renewal process, it was discovered that the aqua filter is not attached to the mixers and, therefore, not a control device for the mixers. The aqua filter is connected to the Indoor New sand tank (EU D). When new virgin sand is pumped from a tanker into the indoor new sand tank, the fines from this process are sent to the aqua filter and virgin sand from the indoor new sand tank is sent to one of the mixers (see previous discussion of the process under the emission units section). A 90% control efficiency is used in the controlled calculations for the Indoor New sand tank (EU D), which also has a bin filter for control.

In addition, calculations were revised to clarify that particulate emissions are to be accounted during the handling of sand to the Indoor New sand tank (EU D), and not at the mixers, since the mixing operation is an enclosed process and particulate emissions are emitted, but the throughput capacity of the sand handling system was determined using the maximum capacity of the mixers. It was also evaluated that the emissions from the sand handling occur in the transport of sand from tankers to EU D. The transfer of sand from EU D to the other sand tanks is pneumatic, therefore no emissions are considered.

CO Emission Factor:

The potential to emit of CO based on the default emission factor of 6.0 lbs/ton of metal poured for the combined pouring, cooling and shakeout processes and unlimited potential emissions (using maximum design capacity and 8,760 hrs per year) results in potential CO emissions from the PCS operations of 49.01 tons per year. Source wide potential CO emissions are 52.42 tons per year. Therefore, since source wide potential CO emissions are less than 100 tons per year, the source is in compliance with 326 IAC 2-8 and the requirements of 326 IAC 2-2 (PSD) do not apply.

County Attainment Status

The source is located in Grant County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$

Grant County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

Grant County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

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

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10 and PM2.5 is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's PM, PM10 and PM2.5 emissions to less than Title V levels, therefore the Permittee will be issued a FESOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs as CO2e	Total HAPs	Worst Single HAP
Foundry Processes: (1)										
Charge Handling (EU1)	1.42	0.85	0.85	0.00	0.00	0.00	0.00	0.00	0.05	0.04
Electric Induction Melting (EU2 and EU20)	2.13	2.03	2.03	0.00	0.00	0.00	0.00	0.00	0.18	0.06
Pouring/Casting (EU3)	6.62	1.56	1.56	0.05	0.02	0.33	14.19	0.00	0.22	0.18
Casting Cooling (EU4)	3.31	3.31	3.31	0.00	0.00	0.00	0.00	0.00	0.11	0.09
Casting Shakeout (EU5)	7.57	5.30	5.30	0.00	0.00	2.84	0.00	0.00	0.25	0.20
Inoculation	9.46	9.46	9.46	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Binder System used in conjunction with the mixer Process						5.11			2.91	
Sand Handling/Transport System:										
Five indoor sand tanks and two outdoor sand tanks: Indoor Bi-Room sand tank, EUA Indoor Floor sand tank, EU B Indoor Line sand tank, EU C Indoor New sand tank, EU D Outdoor sand tank, EU E Outdoor sand tank, EU F Indoor Dirty sand tan, EU G	15.77	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Floor Mixer (EU8)	negl	negl	negl	0.00	0.00	20.21	0.00	0.00	0.89	0.49
Bi-room Mixer (EU9)				0.00	0.00		0.00	0.00		
Core Room Mixer (EU10)				0.00	0.00		0.00	0.00		
Line Mixer (EU11)				0.00	0.00		0.00	0.00		
Thermal Sand Reclaimer (EU6) (2)	15.77	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mechanical Sand Reclaimer (EU7)(2)	23.65	3.55	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thermal Sand Reclaimer (EU19) (2)	3.94	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blasting Process										
Metfin Table Blast Machine #1 (EU13)	1.21	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.79	0.65
Pangborn Table Blast Machine #2 (EU14) and Wheelabrator Tumble Blast Machine #1 (EU15)	0.80	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.34	0.28
Mold /Core Painting:										
Mold Release Spray (EU17)	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	
Mold/core Painting Process (EU18)	7.12	7.12	7.12	0.00	0.00	17.44	0.00	0.00	0.00	
Insignificant Activities:										
Natural Gas Combustion units include: (EU2, EU6, EU19, EU12, U16 and EU20)	0.04	0.16	0.16	0.01	2.17	0.12	1.82	2,617.55	0.04	0.04
Paved Roads	0.42	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	
Back-up Emergency Generator	0.003	0.004	0.004	0.00	0.24	0.01	0.03	10.32	0.01	0.00
Total PTE of Entire Source	**99.24**	**38.96**	**38.90**	**0.06**	**2.43**	**46.46**	**16.04**	**2,627.88**	**5.77**	**2.02**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000	NA	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs as CO2e	Total HAPs	Worst Single HAP

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
*** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.
1. PM emission are limited to less than 100 tons per year, thus the source is considered a minor PSD source.
The foundry process throughput is limited to 4,730.4 tons of metal per year.
The mixers are enclosed and the PM/PM10/PM2.5 emissions are negligible. The PM/PM10/PM2.5 emissions are from the Indoor New sand tank (EU D) and controlled by "aqua filter".
2. PTE Before Control

FESOP STATUS

(a) This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels.

(1) HAP
In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

(2) GHG
This existing stationary source is not major for Title V because the emissions of each criteria pollutant are less than one hundred (<100) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is in one of the twenty-eight (28) listed source categories.

(3) PM10, PM2.5 and CO
The $PM_{10,}$ $PM_{2.5}$ and CO limits are as follows:

(a) The metal throughput to the electric induction melting process (EU2 and EU20) shall not exceed 4,730.4 tons per 12 consecutive month period with compliance determined at the end of each month. This shall limit the throughput of metal to the charge handling (EU1), pouring/casting (EU3), casting cooling (EU4), Inoculation (with Ferrosilicon), and casting shakeout (EU5) processes as well.

Note: The existing limit in the permit did not change. The previous limit was stated in pounds per year and is now expressed in tons per year.

(b) PM10 emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.86 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(0.86 lbs/ton)*(1 ton/2000 lbs) = 2.03 tons/yr

(c) PM2.5 emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.86 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(0.86 lbs/ton)*(1 ton/2000 lbs) = 2.03 tons/yr

Note: IDEM is now required to regulate PM2.5 emissions. Therefore, the FESOP Renewal will include PM2.5 emission limits for the charge handling operation, electric induction furnace, pouring/casting, casting/cooling, casting shakeout and inoculation process in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

(d) PM10 emissions from the charge handling operation (EU1) shall not exceed 0.36 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(0.36 lbs/ton)*(1 ton/2000 lbs) = 0.85 tons/yr

(e) PM2.5 emissions from the charge handling operation (EU1) shall not exceed 0.36 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(0.36 lbs/ton)*(1 ton/2000 lbs) = 0.85 tons/yr

(f) PM10 emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(4.00 lbs/ton)*(1 ton/2000 lbs) = 9.46 tons/yr

(g) PM2.5 emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(4.00 lbs/ton)*(1 ton/2000 lbs) = 9.46 tons/yr

(h) PM10 emissions from the pouring/casting (EU3) operation shall not exceed 0.66 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(0.66 lbs/ton)*(1 ton/2000 lbs) = 1.56 tons/yr

(i) PM2.5 emissions from the pouring/casting (EU3) operation shall not exceed 0.66 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(0.66 lbs/ton)*(1 ton/2000 lbs) = 1.56 tons/yr

(j) PM10 emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(1.4 lbs/ton)*(1 ton/2000 lbs) = 3.31 tons/yr

(k) PM2.5 emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(1.4 lbs/ton)*(1 ton/2000 lbs) = 3.31 tons/yr

(l) PM10 emissions from the casting shakeout (EU5) operation shall not exceed 2.24 pounds per ton of metal throughput.

PM10 = (4,730.4 tons/yr)*(2.24 lbs/ton)*(1 ton/2000 lbs) = 5.30 tons/yr

(m) PM2.5 emissions from the casting shakeout (EU5) operation shall not exceed 2.24 pounds per ton of metal throughput.

PM2.5 = (4,730.4 tons/yr)*(2.24 lbs/ton)*(1 ton/2000 lbs) = 5.30 tons/yr

Note: These are new PM10 and PM2.5 limits in this FESOP renewal. This is a Title 1 change.

(n) The sand throughput to the sand system process consists of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor sand tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F), Dirty Sand Tank (EU G) and associated Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10) and Line Mixer (EU11) shall not exceed 15.77 tons per 12 consecutive month period with compliance determined at the end of each month.

Note: Bahr Brothers Manufacturing is accepting a new sand throughput limit for the sand handling system, the Indoor New Sand tank, EU D, in addition to the existing metal throughput limit and blast unit limit in adding the new furnaces in this renewal. It was necessary to revise the total combined metal throughput in order to remain a minor source under 326 IAC 2-7 Title V. This is a Title 1 change.

(o) PM10 emissions from the sand system process (EU A, EU B, EU C, EU D, EU E, EU F, EU G, EU8, EU9, EU10 and EU11) shall be limited to 0.54 pounds per ton of sand throughput.

PM10 = (10.00 tons/hour)*(0.54 lbs/ton)*(1 ton/2000 lbs) * 8760 * (1-.90) = 2.37 tons/yr (controlled)

(p) PM2.5 emissions from the sand system process (EU A, EU B, EU C, EU D, EU E, EU F, EU8, EU9, EU10 and EU11) shall be limited to 0.54 pounds per ton of sand throughput.

PM2.5 = (10.00 tons/hour)*(0.54 lbs/ton)*(1 ton/2000 lbs) * 8760 * (1-.90) = 2.37 tons/yr (controlled)

(q) PM10 emissions from the Metfin table blast machine #1 (EU13), Stack 3, shall not exceed 0.028 pounds per hour, which is equivalent to 0.12 tons/yr.

(r) PM2.5 emissions from the blasting unit: Metfin table blast machine #1 (EU13), Stack 3 shall not exceed 0.028 pounds per hour, which is equivalent to 0.12 tons/yr.

Note: The Metfin Table Blast Machine #1 (EU13) has a maximum process capacity of 2,238 pounds per hour, which is based upon the maximum metal process throughput of 3,730 pounds per hour for the foundry and a conservative assumption of 60% yield rate (i.e., only 60% of the metal melted actually reaches the finishing operations).

Note: The limits in the permit have changed. This is a Title 1 change.

(s) PM10 emissions from the blasting units: pangborn table blast machine #2 (EU14), and wheelabrator tumble blast machine #1 (EU15) combined for stack 4 shall not exceed 0.018 pounds per hour, which is equivalent to 0.08 tons/yr.

(t) PM2.5 emissions from the blasting units: pangborn table blast machine #2 (EU14), and wheelabrator tumble blast machine #1 (EU15), combined for Stack 4, shall not exceed 0.018 pounds per hour, which is equivalent to 0.08 tons/yr.

Note: The Pangborn Table Blast Machine #2 (EU14) and the Wheelabrator Tumble Blast Machine #1 (EU15) have a limited maximum process capacity of 216 pounds per hour, which is based upon a conservative assumption that only 20% of the metal melted can actually reach the cleaning/finishing process based upon

the limited throughput rate (1080 pounds per hour) will actually be processed in one of these two smaller machines.

Note: The limits in the permit have changed. This is a Title 1 change.

Note: These are new PM2.5 limits in this FESOP renewal. This is a Title 1 change.

(u) CO emissions from the pouring/castings, cooling, and shakeout operation shall not exceed 6.0 lbs of CO per ton of metal throughput.

CO = (4730.4 tons/yr) * 6.0 lb/ton) * (1 ton/2000 lbs) = 14.19 tons/yr

Compliance with these limits, combined with the potential to emit PM10, PM2.5, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, and CO to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

PSD Status

In addition to the above mentioned FESOP limits, PSD minor limits for PM are as follows:

(a) PM emissions from the electric induction melting process (EU2 and EU20) shall not exceed 0.90 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(0.90 lb/ton)*(1 ton/2000 lbs) = 2.13 tons/yr

(b) PM emissions from the sand system process consisting of the Indoor Bi-Room sand tank (EU A), Indoor sand tank (EU B), Indoor Floor sand tank (EU C), Indoor New sand tank (EU D), Outdoor sand tanks (EU E and F) and Indoor Dirty Sand Tank (EU G) and associated Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10) and Line Mixer (EU11), shall not exceed 3.6 pounds per ton of sand throughput.

PM = (10.00 tons/hour)*(3.6 lb/ton)*(1 ton/2000 lbs) * (1-.90) = 15.77 tons/yr

(c) PM emissions from the charge handling operation (EU1) shall not exceed 0.60 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(0.60 lb/ton)*(1 ton/2000 lbs) = 1.42 tons/yr

(d) PM emissions from the Inoculation operation shall not exceed 4.00 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(4.00 lb/ton)*(1 ton/2000 lbs) = 9.46 tons/yr

(e) PM emissions from the pouring/casting (EU3) operation shall not exceed 2.8 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(2.8 lb/ton)*(1 ton/2000 lbs) = 6.62 tons/yr

(f) PM emissions from the casting/cooling (EU4) operation shall not exceed 1.4 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(1.40 lb/ton)*(1 ton/2000 lbs) = 3.31 tons/yr

(g) PM emissions from the casting shakeout (EU5) operation shall not exceed 3.20 pounds per ton of metal throughput.

PM = (4,730.4 tons/yr)*(3.20 lb/ton)*(1 ton/2000 lbs) = 7.57 tons/yr

(h) PM emissions from the Metfin table blast machine #1 (EU13), Stack 3, shall not exceed 0.275 pounds per hour.

PM = 0.28 (pounds/hr)*8760 (hours/year)*(1 ton/2000 lbs) = 1.21 tons/yr

(i) PM emissions from the blasting units: pangborn table blast machine #2 (EU14), and wheelabrator tumble blast machine #1 (EU15) combined for stack 4 shall not exceed 0.184 pounds per hour.

PM = 0.184 (pounds/hr)*8760 (hours/year)*(1 ton/2000 lbs) = 0.80 tons/yr

Compliance with these limitations, combined with the limited potential to emit from all other units at this source, will limit source wide PM emissions to less than 100 tons per year per 12 consecutive month period and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70) not applicable.

Note: These are new limits in this FESOP renewal.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

New Source Performance Standards (NSPS)

(a) Thermal sand reclaimer, identified as EU6, and thermal sand reclaimer, identified as EU19

The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR Part 60.730, Subpart UUU, are included in the permit because the source utilizes thermal sand reclamation.

Pursuant to EPA's Applicability Determination Index (ADI) database (http://www.epa.gov/compliance/monitoring/programs/caa/adi.html) posting dated April 29, 2004 (Control Number: 0500056), emission units used in the reclamation of foundry sand that remove water through direct or indirect heating meet the definition of calciners and dryers as defined in 40 CFR 60.731.

The requirements of the New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries, (40 CFR 60.730, Subpart UUU) are applicable to the natural gas-fired thermal sand reclaimer, identified as EU6, and the natural gas-fired thermal sand reclaimer, identified as EU19.

Note: This is a new requirement included in the permit. This is a Title 1 change.

Applicable portions of the NESHAP are the following:

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart UUU (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart UUU:

(1) 60.730(a)(c)
(2) 60.731

(3) 60.732
(4) 60.733
(5) 60.734
(6) 60.735
(7) 60.736
(8) 60.737

This affected source is required to perform testing to comply with this NSPS.

(b) The mechanical sand reclaimer (EU7) is not subject to NSPS Subpart UUU because it is not a thermal sand reclaimer.

(c) The emergency generator at this gray and ductile iron foundry is not subject to the requirements of 40 CFR 60, Subpart IIII, New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200 through 60.4219) (326 (IAC 12) because it is not a stationary compression ignition (CI) engine. This unit uses natural gas only.

(d) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 326 IAC 12 and 40 CFR 60.4230, Subpart JJJJ are not included in the permit because the capacity of the engine is not greater than 500 Hp.

(e) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Iron and Steel Foundries, (40 CFR 63, Subpart EEEEE (326 IAC 20-92)(5E)), are not included in the permit. This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, 40 CFR Subpart EEEEE (63.7680 through 63.7762) because the requirements of this subpart applies to each new or existing iron and steel foundry that is a major source of HAPs. A major source of HAPs is a source that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year. This source is not a major source of HAPs and is therefore not subject to this rule, since this source has agreed to limit any single HAP to less than ten (10) tons per year and total HAPs to less than twenty-five (25) tons per year.

(b) This gray and ductile iron foundry is subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources (40 CFR 63, Subpart ZZZZZ) (5Z), because this source is a iron foundry per the definition in 40 CFR 63.10906 and is an area source of HAPs. This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart ZZZZZ. It is an existing affected iron and steel foundry area source because it commenced construction before September 17, 2007.

Note: This is a new requirement included in the permit. This is a Title 1 change.

The electric melt furnaces, identified as EU-2 and EU-20 are subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources, 40 CFR 63.10880, Subpart ZZZZZ(5Z) because they process both iron and steel.

The electric melt furnaces are subject to this rule as follows:

(1) 40 CFR 63.10880(a),(b)(1), (c), (e), and (f)
(2) 40 CFR 63.10881(a)(1) and (2) and (d)
(3) 40 CFR 63.10885
(4) 40 CFR 63.10886
(5) 40 CFR 63.10890

(6) 40 CFR 63.10899
(7) 40 CFR 63.10905
(8) 40 CFR 63.10906

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart ZZZZZ.

This affected source is not required to perform testing to comply with this NESHAP since it is currently classified as a small foundry.

(c) Existing emergency spark ignition stationary RICE

(a) The natural gas (emergency generator/engine) (ID#) (40 HP) is subject to the requirements of the 40 CFR 63, Subpart ZZZZ(4Z), National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (326 IAC 20-82), because it is considered a existing stationary reciprocating internal combustion engine (RICE) (construction commenced before June 12, 2006) at an area source of hazardous air pollutants (HAP). The natural gas emergency generator/engine) (ID#) unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

(h) One (1) natural gas-fired only emergency generator rated at (30KW) which is 40 output horsepower. The unit was purchased in May 2005, installed in June 2005, and began operation in June 2005.

Under 40 CFR 63, Subpart ZZZZ, the natural gas emergency generator engine is an affected facility.

This is a new requirement for the source. There are no testing requirements in this NESHAP that are applicable to the natural gas-fired emergency generator.

The natural gas emergency generator/engine (ID#) is subject the following applicable portions of the NESHAP for existing emergency stationary RICE (construction commenced before June 12, 2006) at an area source of HAPs:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(iii)
(4) 40 CFR 63.6595(a)(1),(b), and (c)
(5) 40 CFR 63.6603
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (j)
(8) 40 CFR 63.6635
(9) 40 CFR 63.6640
(10) 40 CFR 63.6645(a)(5)
(11) 40 CFR 63.6650
(12) 40 CFR 63.6655
(13) 40 CFR 63.6660
(14) 40 CFR 63.6665
(15) 40 CFR 63.6670
(16) 40 CFR 63.6675
(17) Table 2d (item 5)
(18) Table 6 (item 9)
(19) Table 8

Note: Existing emergency spark ignition (SI) stationary RICE located at an area source of HAP are not subject to numerical CO or formaldehyde emission limitations, but are only subject to work and management practices under Table 2d and Table 6.

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the souce except as otherwise specified in 40 CFR 63, Subpart ZZZZ.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart QQQ (3Q)) for Primary Copper Smelting for this source are not included in this permit because the source does not perform primary copper smelting.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart EEEEEE (6E)) for Primary Copper Smelting Area Sources for this source are not included in this permit because the source does not perform primary copper smelting.

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart FFFFFF (6F)) for Secondary Copper Smelting Area Sources for this source are not included in this permit because the source does not perform secondary copper smelting.

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart TTTTTT (6T) for Secondary Nonferrous Metals Processing Area Sources for this source are not included in this permit because this source is not a furnace melting operation or a secondary nonferrous metals processing facility (brass and bronze ingot making, secondary magnesium processing, or secondary zinc processing plant that uses furnace melting).

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart VVVVVV (6V)) for Chemical Manufacturing Area Sources for this source are not included in this permit because the source does not operate a chemical manufacturing process unit (CMPU).

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)), are not included for this proposed permit, because this source's SIC is not listed.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (40 CFR 63 Subpart ZZZZZZ (6Z)), Area Source Standards for Aluminum, Copper, and Other Nonferrous Metals) for this source are not included in this permit because this source is not a foundry that melts copper or copper-based alloys and pours molten copper or copper-based alloys into molds to manufacture copper or copper-based alloy castings (excluding die casting) that are complex shapes.

(k) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart RRR (Secondary Aluminum Production), (40 CFR Part 63.1500 - 63.1519), because this source is not a secondary Aluminum Production facility, and is not a major source of hazardous air pollutants (HAPs) as defined in §63.2.

(l) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

State Rule Applicability - Entire Source

(a) 326 IAC 1-6-3 (Preventive Maintenance Plan)
Some of the units at the source are subject to 326 IAC 1-6-3. Any person responsible for operating any facility required to obtain a permit under the Federally Enforceable State Operating Permit Program, 326 IAC 2-8, shall prepare and maintain a preventive maintenance plan in accordance with 326 IAC 1-6-3(a), whenever a control device is required for compliance with any applicable emission limitations and/or air pollution control regulations. The use of a control device

to limit the particulate emissions of PM, PM10 and PM2.5 to less than PSD and TV thresholds is required. Therefore a PMP is still required for these units and their associated control devices.

(b) 326 IAC 1-5-2 (Emergency Reduction Plans)
The source is not subject to 326 IAC 1-5-2 because the potential to emit of all pollutants is limited to less than one hundred (100) tons per year, each.

(c) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This source operates under the Standard Industrial Classification (SIC) Code 3321 and therefore, belongs to the secondary metal production plant source category in 326 IAC 2-2-1(gg)(1) as one of the 28 listed source categories. No major modification has been done since the source was originally constructed. The uncontrolled potential to emit PM and PM10 for this source exceeds the 100 tons per year major source threshold.

The rule was evaluated in the PSD section above.

(d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
This source is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the emission units constructed after July 27, 1997 is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

(e) 326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

(f) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(g) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in 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) miute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

(i) 326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

(j) 326 IAC 6.8 PM Limitations for Lake County
This source is not subject to 326 IAC 6.8 because it is not located in Lake County.

(k) 326 IAC 11-1 (Emission Limitations for Specific Type of Operations)
Pursuant to 326 IAC 11-1-1, emission limitations are established for particulate matter from foundries. Particulate emissions from all foundries in operation on or before December 6, 1968 shall comply with the requirements set forth in section 2 of this rule. Section 2 of the rule limits PM emissions from foundry cupolas. There are no foundry cupolas at this source, therefore, the source is not subject to the requirements of 326 IAC 11-1-2.

(l) 326 IAC 15-1 (Lead Emission Limitations)
This source is not subject to the requirements of 326 IAC 15-1, because it is not specifically listed in 326 IAC 15-2.

(m) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(n) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

State Rule Applicability – Individual Facilities

Foundry Processes

Charge Handling Process EU1 (1970), Electric Induction Melting Process EU2 (1978) and EU20 (2012), Pouring/Casting Process EU3 (1970), Casting Cooling Process EU4 (1970), Shakeout Process EU5 (1970) and Inoculation (with Ferrosilicon)

(a) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is not required for the Charge Handling Process (EU1), Electric Induction Melting Process (EU2) and (EU20), Pouring/Casting Process (EU3), Casting Cooling Process (EU4), Shakeout Process (EU5) and Inoculation (with Ferrosilicon) in the foundry because the emission units do not have controls.

(b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The particulate matter (PM) emissions from the following processes shall be limited as specified in the following table:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)	Uncontrolled PM Emissions (lb/hr)
Charge Handling (EU1)	1.865	6.22	1.12
Electric Induction Melting (EU2)	1.865	6.22	1.68
Electric Induction Melting (EU20)	1.865	6.22	1.68
Pouring/Casting (EU3)	1.865	6.22	5.22
Casting Cooling (EU4)	1.865	6.22	2.61
Shakeout (EU5)	1.865	6.22	5.97
Inoculation (with Ferrosilicon)	1.865	6.22	3.36

*Note process weight rates for the charge handling, pouring/casting, casting cooling, casting shakeout and Inoculation (with Ferrosilicon) operations in the iron foundry include maximum metal and sand throughputs.

** Note: The two (2) iron melting furnaces in (EU2) and in (EU20) cannot be operated simultaneously due to power supply limitations.

The allowable particulate matter (PM) from the above processes were calculated by the following:

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

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

The control shall be in operation at all times the facilities shown in the preceding table are in operation in order to comply with this limit. The calculations in Appendix A will show that they can comply.

(c) 326 IAC 8-1-6 (New facilities; general reduction requirements)
The pouring/casting, casting cooling, shakeout system and sand core painting process, were constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to these emission units.

New electric induction furnaces, EU20 (2012)

326 IAC 8-1-6 (New facilities; general reduction requirements)
Pursuant to 326 IAC 8-1-6, new facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a potential to emit (PTE) VOC at 25 tons or more per year, and which are not otherwise regulated by another provision of Article 8, are subject to the rule requirements. The new electric induction furnace does not emit VOC and is not subject to 326 IAC 8-1-6. Therefore the Best Available Control Technology (BACT) requirements under 326 IAC 8-1-6 (General Reduction Requirements) are not applicable to the new electric induction furnaces.

Sand Handling/Transport System - Sand silos/tanks
Four indoor sand tanks (EU A, B, C and D) and two outdoor sand tanks (EU E and F) using a aqua filter and Floor Mixer EU8 (1999), BI-Room Mixer EU9 (1991), Core Room Mixer EU10 (1991), Line Mixer EU11 (1981)

The following limits were in the previous permit but were removed in this renewal because the mixers are not being limited, the sand tank/silos are the units limited and the source accepted a sand limitation instead:

D.2.1 PSD Minor Limit [326 IAC 2-2] [326 IAC 2-8]

. . .

(b) Particulate Matter (PM) emissions from the Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10), and Line Mixer (EU11) shall not exceed 10.26 pounds per hour.

(c) Particulate matter with a diameter less than ten (10) microns (PM10) emissions from the Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10), and Line Mixer (EU11) shall not exceed 10.26 pounds per hour.

. . .

(a) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is required for the Four indoor sand tanks (EU A, B, C and D) and two outdoor sand tanks (EU E and F).

A Preventive Maintenance Plan is not required for emission units, Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10), Line Mixer (EU11), because the emission units do not have controls. The sand mixers themselves are completely enclosed, preventing particulate to escape into the plant.

(b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The particulate matter (PM) emissions from the following process shall be limited as specified in the following table:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)	90% Controlled with aqua filter PM Emissions (lb/hr)
Indoor New sand tank, EU D	40.5	42.64	* 4.26

* The particulate matter (PM) from the Indoor New sand tank (EU D) was calculated using the following equation:

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 in pounds per hour; and
P = process weight rate in tons per hour

The aqua filters associated with the silos should operate at all times. The calculations in Appendix A will show that they can comply.

New sand mixer EU9 (2012)

326 IAC 8-1-6 (New facilities; general reduction requirements)
Pursuant to 326 IAC 8-1-6, new facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a potential to emit (PTE) VOC at 25 tons or more per year, and which are not otherwise regulated by another provision of Article 8, are subject to the rule requirements. The new sand mixer that is a replacement is not subject to 326 IAC 8-1-6. Therefore the Best Available Control Technology (BACT) requirements under 326 IAC 8-1-6 (General Reduction Requirements) are not applicable to the sand mixer.

Sand Reclaimers

Natural gas fired Thermal Sand Reclaimer, EU6 (1993), Mechanical Sand Reclaimer, EU7 (1993), and Thermal Sand Reclaimer EU19 (2004)

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The particulate matter (PM) emissions from the following processes shall be limited as specified in the following table:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency % (baghouse)	Controlled PM Emissions (lb/hr)

Thermal Sand Reclaimer (EU6)	1.0	4.10	3.60	95	0.18
Mechanical Sand Reclaimer (EU7)	1.5	5.38	5.40	95	0.27
Thermal Sand Reclaimer (EU19)	0.25	1.62	0.90	95	0.14

The baghouses for EU6, EU7, and EU19 shall be in operation at all times when the Thermal Sand Reclaimer, the Mechanical Sand Reclaimer and the Thermal Sand Reclaimer (EU19) system are in operation to comply with this limit.

The particulate matter (PM) from the above processes were calculated by the following:

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

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

(b) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is required for emission units, Natural gas fired Thermal Sand Reclaimer, EU6 , Mechanical Sand Reclaimer, EU7 and Thermal Sand Reclaimer EU19.

Blasting Process
Metfin shot blast machine #1, EU13 (2008), Steel Shot Pangborn Table Machine #2, EU14 (1985), Steel Shot Wheelabrator Tumble Blast Machine #1 EU15 (1985)

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The particulate matter (PM) emissions from the following processes shall be limited as specified in the following table:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency % (baghouse)	Controlled PM Emissions (lb/hr)
Metfin shot blast machine #1 (EU13)	1.12	4.42	14.96	95	1.21
Pangborn table blast machine #2 (EU14)	0.373	2.11	3.06	95	0.40
Wheelabrator tumble blast machine #1 (EU15)	0.373	2.11	3.06	95	0.40

The baghouses for EU13, EU14, EU15 shall be in operation at all times when the Metfin shot blast machine #1, the Steel Shot Pangborn Table Machine #2, Steel Shot Wheelabrator Tumble Blast Machine #1, are in operation to comply with this limit.

The particulate matter (PM) from the above processes were calculated by the following:

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

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

(b) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is required for emission units, Metfin shot blast machine #1, EU13, Steel Shot Pangborn Table Machine #2, EU14 and Steel Shot Wheelabrator Tumble Blast Machine #1 EU15.

Mold/core Painting
Mold Release Spray, EU17 (1970), Mold/Core Painting Process EU18 (1980)

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
A determination was made in the TSD Addendum to the original FESOP 053-1180-00022 issued on September 20, 2007, that the Mold Release Spray, EU17 has no potential PM emissions and, therefore, is not subject to 326 IAC 6-3-2.

(b) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)
The requirements of 326 IAC 8-1-6 are not applicable to the mold release spray (EU17) because the process does not have potential emissions greater than twenty-five (25) tons of VOCs per year.

(c) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is not required for the mold release spray process (EU17).

(d) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Based on information submitted by the source, EU18 qualifies as a "surface coating" operation pursuant to 326 IAC 6-3-1.5(5) because it involves the application of a coating that serves a functional purpose, to obtain a good finish on the metal castings. Therefore, EU18 is subject to 326 IAC 6-3-2(d)

The particulate matter (PM) from the mold/core painting booth (EU18) shall be limited by the following:

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

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

The control device for EU18 shall be in operation at all times when the mold/core painting booth is in operation to comply with this limit.

(e) 326 IAC 8-1-6 (General Reduction Requirements)
Pursuant to 326 IAC 8-1-6, new facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a potential to emit (PTE) VOC at 25 tons or more per year, and which are not otherwise regulated by another provision of Article 8, are subject to the rule requirements.

The one (1) mold/core painting booth (EU18) has a potential to emit VOC above 25 tons per year. The VOC emissions from the one (1) mold/core painting booth (EU18) shall be limited to less than 25 tons per twelve (12) consecutive month period. At a 62.45% annual material usage limitation, VOC emissions from EU18 are limited to less than 25 tons per year. Therefore the Best Available Control Technology (BACT) requirements under 326 IAC 8-1-6 (General Reduction Requirements) are not applicable to the one (1) mold/core painting booth.

(f) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)
A Preventive Maintenance Plan is required for the mold/core painting process (EU18).

Natural Gas Combustion Units - Thermal Sand Reclaimer (EU6) Normalize Heat Treat Furnace (EU12), Ladle Preheaters (EU16) and Thermal Sand Reclaimer (EU19)

Pursuant to 326 IAC 2-7-1(39), starting July 1, 2011, greenhouse gases (GHGs) emissions are subject to regulation at a source with a potential to emit 100,000 tons per year or more of CO2 equivalent emissions (CO2e). Therefore, CO2e emissions have been calculated for this source. Based on the calculations the unlimited potential to emit greenhouse gases from the entire source is less than 100,000 tons of CO2e per year.

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

This rule is not applicable to the natural gas-fired combustion units because they are not sources of indirect heating, because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit. Therefore, the requirements of 326 IAC 6-2-4 do not apply to the natural gas fired combustion units.

326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

The natural gas-fired combustion units are not subject to the requirements of 326 IAC 7-1.1 because they each have potential SO_2 emissions of less than 25 tons per year. Therefore, the requirements of this rule are not included in the permit for these facilities.

326 IAC 10-1-1 (Nitrogen Oxides Control)

The natural gas-fired combustion units are not subject to 326 IAC 10-1-1 (Nitrogen Oxides Control) because the source is not located in Clark or Floyd counties.

Emergency generator

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas- fired emergency generator is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

(b) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
The natural gas- fired emergency generator is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), because it has the potential to emit VOC of less than twenty-five (25) tons per year.

(c) 326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
The natural gas- fired emergency generator is not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there is no applicable emission limits for the source under 326 IAC 9-1-2.

(d) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(e) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Other Insignificant Activities

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This limit applies to the following insignificant activities:

(a) Grinding and machining operations controller 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 cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.

(c) Woodworking activities in the pattern shop (sawing, cutting, routing and planing).

(b) 326 IAC 8-3-2 (Cold Cleaner Operations)
This rule applies to new facilities, constructed after January 1, 1980 performing organic solvent degreasing operations. The insignificant degreasing operations are subject to this rule.

Therefore, the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)
This rule applies to facilities using cold cleaning degreasers without remote solvent reservoirs and constructed after July 1, 1990. This unit was constructed after July 1, 1990 and uses a covered cold cleaner. Therefore, this rule is applicable to the degreasing operations located at the facility and the following conditions apply:

(a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

(B) The solvent is agitated; or
(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
(B) A water cover when solvent is used is insoluble in, and heavier than, water.
(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

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

Emission Unit	Control Device	Operating Parameters	Frequency
Thermal Sand Reclaimer (EU6)	Baghouse	Visible Emissions	Once per day
		Pressure Drop	Once per day
		Inspection	Quarterly

Emission Unit	Control Device	Operating Parameters	Frequency
Mechanical Sand Reclaimer (EU7)	Baghouse	Visible Emissions	Once per day
		Pressure Drop	Once per day
		Inspection	Quarterly
Metfin shot blast machine #1 (EU13)	Baghouse	Visible Emissions	Once per day
		Pressure Drop	Once per day
		Inspection	Quarterly
Pangborn Table Blast Machine #2 (EU14)	Baghouse	Visible Emissions	Once per day
		Pressure Drop	Once per day
		Inspection	Quarterly
Wheelabrator Tumble Blast Machine #1 (EU15)	Baghouse	Visible Emissions	Once per day
		Pressure Drop	Once per day
		Inspection	Quarterly

These monitoring conditions are necessary because the baghouse for the thermal sand reclaimer (EU6), the mechanical sand reclaimer (EU7), the Metfin shot blast machine #1 (EU13), the pangborn table blast machine #2 (EU14) and the wheelabrator tumble blast machine #1 (EU15) must operate properly to ensure compliance with 326 IAC 2-8-4 (FESOP), 326 IAC 2-2 (PSD), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Emission Unit	Control Device	Operating Parameters	Frequency
Indoor Bi-Room sand tank, EUA Indoor Floor sand tank, EUB Indoor Line sand tank, EUC Indoor New sand tank, EUD Indoor Dirty sand tank, EUG Outdoor sand tank, EUE Outdoor sand tank, EUF	Aqua Filter/Bin Filters	Inspection	Daily

The aqua filter must operate properly to ensure compliance with 326 IAC 2-8-4 (FESOP), 326 IAC 2-2 (PSD), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Testing Requirements

In the previous permit testing was not required and is not being required in this renewal. The source is keeping a record of the metal throughput and the Compliance Data Section reviewed the emission factors. The use of the alternate emission factors will be allowed and testing will not be required to confirm their validity. The source is also keeping a record of the total sand throughput to the sand system process.

The blasting units are not required to test because their operation is already limited by the source melting throughput and the recordkeeping of the throughput. (See methodology in Appendix A for Blasting).

Recommendation

The staff recommends to the Commissioner that the NSR/FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on December 16, 2011. Additional information was received on February 27, March 14, May 21, July 25, September 12, 19th and 20 and October 19, 2012.

Conclusion

The operation of this ductile iron and steel foundry shall be subject to the conditions of the attached NSR/FESOP Renewal No. 053-31902-00022.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Janet Mobley at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5373 or toll free at 1-800-451-6027 extension 4-5373.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
SUMMARY
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, Indiana 46952
Permit Number: 053-31902-00022
Reviewer: Janet Mobley

	Uncontrolled Potential Emissions (tons/yr)										
	PM	**PM 10**	**PM 2.5**	**SO2**	**NOx**	**VOC**	**CO**	**CO2e**	**Total HAPs**	**Single HAPs**	**Worst Single HAP**
Foundry Processes:											
Charge Handling (EU1)	4.90	2.94	2.94	0.00	0.00	0.00	0.00	0.00	0.19	0.15	Manganese
Electric Induction Melting (EU2 and EU20)	7.35	7.03	7.03	0.00	0.00	0.00	0.00	0.00	0.70	0.23	Manganese
Pouring/Casting (EU3)	22.87	5.39	5.39	0.16	0.08	1.14	49.01	0.00	0.87	0.71	Manganese
Casting Cooling (EU4)	11.44	11.44	11.44	0.00	0.00	0.00	0.00	0.00	0.43	0.35	Manganese
Casting Shakeout (EU5)	26.14	18.30	18.30	0.00	0.00	9.80	0.00	0.00	0.99	0.81	Manganese
Inoculation	32.67	32.67	32.67	0.00	0.00	0.04	0.00	0.00	0.00	0.00	
Binder System used in the Pouring/Casting, Casting Cooling and Shakeout Process						5.11			2.91		
Sand System:											
Indoor Bi-Room sand tank, EUA				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Indoor Floor sand tank, EUB				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Indoor Line sand tank, EUC				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Indoor New sand tank, EUD	638.60	95.79	95.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Outdoor sand tank, EUE				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Outdoor sand tank, EUF				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Indoor Dirty Sand tank, EUG				0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Floor Mixer (EU8)											
Bi-room Mixer (EU9)											
Core Room Mixer (EU10)											
Line Mixer (EU11)	negl	negl	negl	negl	negl	20.21	negl	negl	0.89	0.49	Naphthalene
Thermal Sand Reclaimer (EU6)	15.77	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Mechanical Sand Reclaimer (EU7)	23.65	3.55	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Thermal Sand Reclaimer (EU19)	3.94	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Blasting Process:											
Metfin Table Blast Machine #1 (EU13)	83.32	8.33	8.33	0.00	0.00	0.00	0.00	0.00	3.16	2.59	Manganese
Pangborn Table Blast Machine #2 (EU14) and Wheelabrator Tumble Blast Machine #1 (EU15)	166.64	16.66	16.66	0.00	0.00	0.00	0.00	0.00	1.24	1.02	Manganese
Mold /Core Painting:											
Mold Release Spray (EU17)	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	
Mold/core Painting Process (EU18)	11.41	11.41	11.41	0.00	0.00	27.92	0.00	0.00	0.00	0.00	
Insignificant Activities:											
Natural Gas Combustion units include: (EU6, EU19, EU12and EU16)	0.04	0.16	0.16	0.01	2.17	0.12	1.82	2,617.55	0.04	0.04	Hexane
Paved Roads	0.46	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Back-up Emergency Generator	0.00	0.16	0.16	0.00	0.24	0.01	0.03	10.32	0.01	0.00	Formaldeyde
Total	**1049.22**	**216.89**	**216.82**	**0.18**	**2.49**	**64.75**	**50.86**	**2,627.88**	**11.42**	**6.39**	

Appendix A: Emissions Calculations
SUMMARY
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, Indiana 46952
Permit Number: 053-31902-00022
Reviewer: Janet Mobley

	Limited/Controlled Potential Emissions (tons/yr)										
	PM	**PM 10**	**PM 2.5**	**SO2**	**NOx**	**VOC**	**CO**	**CO2e**	**Total HAPs**	**Single HAPs**	**Worst Single HAP**
Foundry Processes:											
Charge Handling (EU1)	1.42	0.85	0.85	0.00	0.00	0.00	0.00	0.00	0.05	0.04	Manganese
Electric Induction Melting (EU2 and EU20)	2.13	2.03	2.03	0.00	0.00	0.00	0.00	0.00	0.18	0.06	Manganese
Pouring/Casting (EU3)	6.62	1.56	1.56	0.05	0.02	0.33	14.19	0.00	0.22	0.18	Manganese
Casting Cooling (EU4)	3.31	3.31	3.31	0.00	0.00	0.00	0.00	0.00	0.11	0.09	Manganese
Casting Shakeout (EU5)	7.57	5.30	5.30	0.00	0.00	2.84	0.00	0.00	0.25	0.20	Manganese
Inoculation	9.46	9.46	9.46	0.00	0.00	0.01	0.00	0.00	0.00	0.00	
Binder System used in conjunction with the mixer Process						5.11			2.91		
Sand System:											
Indoor Bi-Room sand tank, EUA				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indoor Floor sand tank, EUB				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indoor Line sand tank, EUC				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indoor New sand tank, EUD	15.77	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Outdoor sand tank, EUE				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Outdoor sand tank, EUF				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indoor Dirty Sand tank, EUG				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Floor Mixer (EU8)											
Bi-room Mixer (EU9)											
Core Room Mixer (EU10)											
Line Mixer (EU11)	negl	negl	negl	0.00	0.00	20.21	0.00	0.00	0.89	0.49	Naphthalene
Thermal Sand Reclaimer (EU6)	15.77	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Mechanical Sand Reclaimer (EU7)	23.65	3.55	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Thermal Sand Reclaimer (EU19)	3.94	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Blasting Process											
Metfin Table Blast Machine #1 (EU13)	1.21	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.79	0.65	Manganese
Pangborn Table Blast Machine #2 (EU14) and Wheelabrator Tumble Blast Machine #1 (EU15)	0.80	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.34	0.28	Manganese
Mold /Core Painting:											
Mold Release Spray (EU17)	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	
Mold/core Painting Process (EU18)	7.12	7.12	7.12	0.00	0.00	17.44	0.00	0.00	0.00	0.00	
Insignificant Activities:											
Natural Gas Combustion units include: (EU6, EU19, EU12and EU16)	0.04	0.16	0.16	0.01	2.17	0.12	1.82	2,617.55	0.04	0.04	Hexane
Paved Roads	0.42	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Back-up Emergency Generator	0.00	0.00	0.00	0.00	0.24	0.01	0.03	10.32	0.01	0.00	Formaldehyde
Total	**99.24**	**38.96**	**38.90**	**0.06**	**2.43**	**46.46**	**16.04**	**2,627.88**	**5.77**	**2.02**	

total emissions based on rated capacity at 8,760 hours/year, after control and limits on production throughput.

Appendix A: Secondary Metal Production
Inoculation and Charge Handling (EU1)
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-21

Inoculation

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
					PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		4.00
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.540	4,730.40	4.00

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	4.00	4.00	--	--	0.005	--
Potential Emissions lbs/hr	7.46	7.46	--	--	0.01	--
Potential Emissions lbs/day	179.04	179.04	--	--	0.22	--
Potential Emissions tons/year	32.67	32.67	--	--	0.04	--
Limited Emissions tons/yr	9.46	9.46	--	--	0.01	--

Notes for the Inoculation process:
The emission factor used in the calculations for the inoculation process in this renewal for PM of 4.0 lbs/ton is from EPA's FIRE Database (6.25 version).
There is not a PM10 emission factor so the PM 10 factor used is the same as PM, assuming PM= PM10
Even though the process at Bahr Brothers Manufacturing uses ferrosilicon as the innoculant material and does not use magnesium, since we are not aware of an appropriate factor using ferrosilicon, the source accepted the emission factor.

SCC# 3-04-003-15

Charge Handling (EU1)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
					PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		0.60
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.54	4,730.40	0.36

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	0.6	0.36	--	--	--	--
Potential Emissions lbs/hr	1.12	0.67	--	--	--	--
Potential Emissions lbs/day	26.86	16.11	--	--	--	--
Potential Emissions tons/year	4.90	2.94	--	--	--	--
Limited Emissions tons/yr	1.42	0.85	--	--	--	--

Methodology

Note: Throughput lbs/hr = the maximum capacity of the largest existing furnace (EU2) 1750 lbs/hr and the maximum capacity of the largest of the new furnaces being added (EU20) 1980=3730 lbs/hour. The emission factors are the same when processing steel or iron.

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)

Potential to Emit PM/PM10 (tons/yr) before limit = Emission Factor * ton/hr (throughput (lbs/hr) / (1ton/2000 lbs)

Limited PM/PM10 (tons/yr) = (Emission Factor * limited throughput (lbs/hr)) * 8760 /2000 (lbs/ton)

Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)

Appendix A: Secondary Metal Production
Units EU2 and EU20
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-03
Electric Induction Melting (EU2)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		* This is the limit for EU2 and EU20 Limit (combined) lbs/ton
					PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		**0.90**
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.54	**4,730.40**	**0.86**

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	0.9	0.86	--	--	--	--
Potential Emissions lbs/hr	1.68	1.60	--	--	--	--
Potential Emissions lbs/day	40.28	38.49	--	--	--	--
Potential Emissions tons/year	7.35	7.03	--	--	--	--
Limited Emissions tons/yr	2.13	2.03	--	--	--	--

SCC# 3-04-003-03
Electric Induction Melting (EU20)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR	
Iron/Steel	3730	2000	1.865	
				* See above
	1080	2000	0.54	
				EU2 and EU20 Limit (combined) lbs/ton

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	0.9	0.86	--	--	--	--
Potential Emissions lbs/hr	1.68	1.60	--	--	--	--
Potential Emissions lbs/day	40.28	38.49	--	--	--	--
Potential Emissions tons/year	7.35	7.03	--	--	--	--
Limited Emissions tons/yr	2.13	2.03	--	--	--	--

Methodology
Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)
Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)
Potential to Emit PM/PM10 (tons/yr) before limit = Emission Factor * ton/hr (throughput (lbs/hr) / (1ton/2000 lbs)
Limited PM/PM10 (tons/yr) = (Emission Factor * limited throughput (lbs/hr)) * 8760 /2000 (lbs/ton)
Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)
Note: This source is a secondary metal production plant (1 of 28 categories) and therefore is subject to PSD applicability. The source will limit its metal throughput through the primary foundry processes to 0.54 tons/year, which will limit controlled PM emissions to less than 100 tons/year, thus making the source a minor PSD source.

Appendix A: Secondary Metal Production
Units EU3 and EU4

Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-20

Pouring/Casting (EU3)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		2.80
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.54	4730.4	0.66

	PM	PM10	SOx	NOx	VOC ***	CO***
Emission Factor lb/ton	2.8	0.66	0.02	0.01	0.14	6.00
Potential Emissions lbs/hr	5.22	1.23	0.04	0.02	0.26	11.19
Potential Emissions lbs/day	125.33	0.66	0.90	0.45	6.27	268.56
Potential Emissions tons/year	22.87	5.39	0.16	0.08	1.14	49.01
Limited Emissions tons/yr	6.62	1.56	0.05	0.02	0.33	14.19

Casting Cooling (EU4)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		1.40
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.54	4,730.40	1.40

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	1.4	1.4	--	--	--	***
Potential Emissions lbs/hr	2.61	2.61	--	--	--	***
Potential Emissions lbs/day	62.66	62.66	--	--	--	***
Potential Emissions tons/year	11.44	11.44	--	--	--	***
Limited Emissions tons/yr	3.31	3.31	--	--	--	***

Notes for Determining Emission Factor for EU3 and EU4:
The emission factors from the Pouring and Cooling processes (two independent and separate processes) combined are exactly the same as those for just the Pouring/Casting process (see Table below).
Pouring is being considered the same as Casting because this represents the emissions when the molten iron is first poured into the sand mold and the time immediately thereafter while it sits in the sand mold in the pouring area.

Process Description	SCC #	PM EF (lb/ton)	PM-10 EF (lb/ton)
Pouring, Cooling	3-04-003-18	4.2	2.06
Pouring/Casting	3-04-003-20	4.2	2.06
Castings Cooling	3-04-003-25	*	1.4

*None listed for PM (assume PM= PM10 for cooling process).

The Pouring/Casting process is completely separate from the Castings Cooling process at this facility. The processes are shown separately in the emission calculations so the EF for the Castings Cooling process (EU4) used is deducted from the Pouring, Cooling emission factor to arrive at the emission factors used:

Pouring/Casting PM (lb/ton):
Pouring/Casting EF = (Pouring, Cooling EF) – (Castings Cooling EF) = 4.20 – 1.40 = 2.80

Pouring/Casting PM-10 (lb/ton):
Pouring/Casting EF = (Pouring, Cooling EF) – (Castings Cooling EF) = 2.06 – 1.40 = 0.66

Methodology
Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)
Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)
Potential to Emit PM/PM10 (tons/yr) before limit = Emission Factor * ton/hr (throughput (lbs/hr) / (1ton/2000 lbs)
Limited PM/PM10 (tons/yr) = (Emission Factor * limited throughput (lbs/hr)) * 8760 /2000 (lbs/ton)
Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)
*** CO emission factor for pouring/cooling includes emissions from shakeout. CO emission factors based on best available information for CO emissions from pouring, cooling and shakeout operations combined.

Appendix A: Secondary Metal Production
Unit EU5
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-31
Casting Shakeout (EU5)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		PM Limit (lbs/ton)
Iron/Steel	3730	2000	1.865		**3.20**
				Throughput limit (tons/year)	PM10/PM2.5 Limit (lbs/ton)
	1080	2000	0.54	**4,730.40**	**2.24**

	PM	PM10	SOx	NOx	VOC	CO
Emission Factor lb/ton	3.2	2.24	--	--	1.2	***
Potential Emissions lbs/hr	5.97	4.18	--	--	2.24	***
Potential Emissions lbs/day	143.23	100.26	--	--	53.71	***
Potential Emissions tons/year	26.14	18.30	--	--	9.80	***
Limited Emissions tons/yr	7.57	5.30	--	--	2.84	***
Total Potential Emissions (tons/yr)	**112.73**	**52.12**	**0.16**	**0.08**	**10.95**	**49.01**
Limited Emissions (tons/yr)	**32.64**	**15.09**	**0.05**	**0.02**	**3.17**	**14.19**

Methodology

Note: Emission factors are from FIRE version 6.24

Note: This source is a secondary metal production plant (1 of 28 categories) and therefore is subject to PSD applicability. The source will limit its metal throughput through the primary foundry processes to 0.54 tons/year, which will limit controlled PM emissions to less than 100 tons/year, thus making the source a minor PSD source.

*** CO emission factor for pouring/cooling includes emissions from shakeout. CO emission factors based on best available information for CO emissions from pouring, cooling and shakeout operations combined.

Note: The emission factors are the same when processing steel or iron.

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)

Potential to Emit PM/PM10 (tons/yr) before limit = Emission Factor * ton/hr (throughput (lbs/hr) / (1ton/2000 lbs)

Limited PM/PM10 (tons/yr) = (Emission Factor * limited throughput (lbs/hr)) * 8760 /2000 (lbs/ton)

Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)

Appendix A: Sand Grinding/Handling Maximum Potential Particulate Emissions
Sand System consisting of Sand tank/silos EUA-F and Mixers EU8-EU11
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-50

Sand Grinding/Handling, Type of control: Bin Filters for EU A, EU B, EU C , EU G and EU D has a Bin Filter and Aqua Filter. EU E and EU F uses the aqua filter for control.

Combined all tanks/silos		**Throughput**				
TYPE OF MATERIAL		**LBS/HR**	**1 TON/2000 lbs**	**TON/HR**		
Sand New virgin sand is pumped into the Indoor New sand tank, EU D		81,000.00	2000	40.50		
and is distributed to : Indoor Bi-Room sand tank, EU A						
Indoor Floor sand tank, EU B						
Indoor Line sand tank, EU C						
Outdoor sand tank, EU E						
Outdoor sand tank, EU F						
Indoor Dirty Sand tank, EU G						
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	3.6	0.54	--	--	--	--
Potential Emissions lbs/hr	145.80	21.87	--	--	--	--
Potential Emissions lbs/day	3499.20	524.88	--	--	--	--
Potential Emissions tons/year	638.60	95.79	--	--	--	--

Notes: The emissions for the Mixers EU8-EU11 are negligible. The Core Room mixer does not have its own sand tank but is fed by gravity with sand from the Indoor/New sand tank EU D.

Calculating the amount of sand that was delivered to the New Sand Tank (EU D) from the previous year resulted in a lower throughput amount that would not be representative of the sand handling system in other years, so the throughput for the sand handling system was calculated by using the maximum capacity of the four mixers (EU8-EU11) which equals 40.5 tons/hour.

Methodology

Assume PM10 = PM2.5

Note: Emission factor are from FIRE version 6.24.

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)

Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)

Appendix A: Sand Grinding/Handling Maximum Potential Particulate Emissions
Limited/Controlled Sand System consisting of Sand tank/silos EUA-F and Mixers EU8-EU11
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-50

Sand Grinding/Handling, Type of control: Bin Filters for EU A, EU B, EU C , EU G and EU D has a Bin Filter and Aqua Filter. EU E and EU F uses the aqua filter for control.

Combined all tanks/silos		**Throughput**				
TYPE OF MATERIAL		**LBS/HR**	**1 TON/2000 lbs**	**TON/HR**		
Sand New virgin sand is pumped into the Indoor New sand tank, EU D		20,000.00	2000	10.00		
and is distributed to : Indoor Bi-Room sand tank, EU A						
Indoor Floor sand tank, EU B						
Indoor Line sand tank, EU C						
Outdoor sand tank, EU E						
Outdoor sand tank, EU F						
Indoor Dirty Sand tank, EU G						
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	3.6	0.54	--	--	--	--
Potential Emissions lbs/hr	36.00	5.40	--	--	--	--
Potential Emissions lbs/day	864.00	129.60	--	--	--	--
Potential Emissions tons/year	157.68	23.65	--	--	--	--
Limited/Controlled Emissions tons/year	15.77	2.37				

Notes: The emissions for the Mixers EU8-EU11 are negligible. The Core Room mixer does not have its own sand tank but is fed by gravity with sand from the Indoor/New sand tank EU D.

The source limited the amount of the sand throughput to remain a FESOP.

The controlled Emissions used 90% control efficiency for the aqua filter.

Methodology

Assume PM10 = PM2.5

Note: Emission factor are from FIRE version 6.24.

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)

Potential to Emit VOC (tons/yr) = Emission Factor * 8760 (hrs/yr) / 2000 (lbs/ton)

Limited/Controlled PM/PM10/PM2.5 = potential emissions tons/year * 90% control efficiency

Appendix A: Sand Reclaimers Calculations
Reclaimers (EU6, EU7 and EU19)
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-50
Type of control: Baghouse

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Sand		2000	2000	1		
Thermal Sand Reclaimer (EU6)**						
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	3.6	0.54	--	--	--	--
Potential Emissions lbs/hr	3.60	0.54	--	--	--	--
Potential Emissions lbs/day	86.40	12.96	--	--	--	--
Potential Emissions tons/year	15.77	2.37	--	--	--	--
Controlled Emissions tons/year	0.79	0.12				

SCC# 3-04-003-50
Type of control: Baghouse

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Sand		3000	2000	1.5		
Mech. Sand Reclaim (EU7)**						
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Emission factor lb/ton	3.6	0.54	--	--	--	--
Potential Emissions lbs/hr	5.40	0.81	--	--	--	--
Potential Emissions lbs/day	129.60	19.44	--	--	--	--
Potential Emissions tons/year	23.65	3.55	--	--	--	--
Controlled Emissions tons/year	1.18	0.18				

SCC# 3-04-003-50
Type of control: Baghouse

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Sand		500	2000	0.25		
Thermal Sand Reclaimer (EU19) **						
approved under Exemption No. 053-18626-00022 Issued June 7, 2004	**PM**	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
	3.6	0.54	--	--	--	--
Emission factor lb/ton						
Potential Emissions lbs/hr	0.90	0.14	--	--	--	--
Potential Emissions lbs/day	21.60	3.24	--	--	--	--
Potential Emissions tons/year	3.94	0.59	--	--	--	--
Controlled Emissions tons/year	0.20	0.03				

Total Uncontrolled Emissions tons/yr	**43.36**	**6.50**	**--**	**--**	**--**	**--**
Total Controlled Emissions tons/yr	**2.17**	**0.33**	**--**	**--**	**--**	**--**

Methodology

Notes: Emission factors are from FIRE version 6.24.

*Emission unit utilizes a baghouse for PM/PM10 control that has a 95% control efficiency

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr) / (1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = Emission Factor * 24 (hrs/day)

Potential to Emit PM/PM10 (tons/yr) before control = Emission Factor * ton/hr (throughput (lbs/hr) / (1ton/2000 lbs)

Controlled PM/PM10 (tons/yr) = Emission Factor * (1-control efficiency)

Appendix A: Blasting Calculations
EU13, EU14 and EU15
Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

SCC# 3-04-003-40		Maximum Capacity of Metal (lb/hr)				
Grinding/Cleaning, Type of control: Baghouse		3730				
		Throughput				
TYPE OF MATERIAL		LBS/HR*	1 TON/2000 lbs	TON/HR		
Iron/Steel		2238	2000	1.12		
Metfin Table Blast Machine #1 (EU13)*	**PM**	**PM10/2.5**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	17	1.7	--	--	--	--
Potential Emissions lbs/hr	19.02	1.90	--	--	--	--
Potential Emissions lbs/day	456.55	45.66	--	--	--	--
Potential Emissions tons/year	83.32	8.33	--	--	--	--
Controlled Emissions tons/year	4.17	0.42				

*3730 lbs/hour maximum capacity of metal @ 60%= 2238 throughput (lbs/hour)

LIMITED

		Limited throughput of metal (lbs/hr)*		
		1080.00	1 TON/2000 lbs	TON/HR
Metfin Table Blast Machine #1 (EU13)*		648.00	2000	0.32
	PM	PM10/2.5		
Emission Factor lb/ton	17	1.7		
Potential Emissions lbs/hr	5.51	0.55		
Potential Emissions lbs/day	132.19	13.22		
Potential Emissions tons/year	24.13	2.41		
Limited/Controlled lbs/hr	0.28	0.03		
Controlled Emissions tons/year	1.21	0.12		

*1080 lbs/hour of metal @ 60% = 648.00 throughput (lbs/hour)

Notes:

The Metfin Table Blast Machine #1 (EU13) has a maximum process capacity of 2,238 pounds per hour, which is based upon the maximum metal process throughput of 3,730 pounds per hour for the foundry and a conservative assumption of 60% yield rate (e.g., only 60% of the metal melted actually reaches the finishing operations). However, the throughput is limited to 648.0 pounds per hour since the hourly throughput for the foundry processes ls limited to only 1080 pounds per hour to keep the facility beneath the 100 tons per year Title V and PSD thresholds.

SCC# 3-04-003-40		Maximum Capacity of Metal (lb/hr)				
Grinding/Cleaning, Type of control: Baghouse		3730				
		Throughput				
TYPE OF MATERIAL		LBS/HR	1 TON/2000 lbs	TON/HR		
Iron/Steel		2238	2000	1.119		
Pangborn Table Blast Machine #2 (EU14)*						
	PM	**PM10/2.5**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	17	1.7	--	--	--	--
Potential Emissions lbs/hr	19.02	1.90	--	--	--	--
Potential Emissions lbs/day	456.55	45.66	--	--	--	--
Potential Emissions tons/year	83.32	8.33	--	--	--	--
Controlled Emissions tons/year	4.17	0.42				

LIMITED

		Limited throughput of metal (lbs/hr)*		
		1080.00	1 TON/2000 lbs	TON/HR
Pangborn Table Blast Machine #2 (EU14)*		216.00	2000	0.108
	PM	**PM10/2.5**		
Emission Factor lb/ton	17	1.7		
Potential Emissions lbs/hr	1.84	0.18		
Potential Emissions lbs/day	44.06	4.41		
Potential Emissions tons/year	8.04	0.80		
Limited/Controlled lbs/hr	0.09	0.01		
Controlled Emissions tons/year	0.40	0.04		

*1080 lbs/hour of metal @20% = 216.00 throughput (lbs/hour)

SCC# 3-04-003-40		Maximum Capacity of Metal (lb/hr)				
Grinding/Cleaning, Type of control: Baghouse		3730				
		Throughput				
TYPE OF MATERIAL		LBS/HR	1 TON/2000 lbs	TON/HR		
Iron/Steel		2238	2000	1.119		
Wheelabrator Tumble Blast Machine #1 (EU15)*						
	PM	**PM10/2.5**	**SOx**	**NOx**	**VOC**	**CO**
Emission Factor lb/ton	17	1.7	--	--	--	--
Potential Emissions lbs/hr	19.02	1.90	--	--	--	--
Potential Emissions lbs/day	456.55	45.66	--	--	--	--
Potential Emissions tons/year	83.32	8.33	--	--	--	--
Controlled Emissions tons/year	4.17	0.42				

LIMITED

		Limited throughput of metal (lbs/hr)*		
		1080.00	1 TON/2000 lbs	TON/HR
Wheelabrator Tumble Blast Machine #1 (EU15)*		216.00	2000	0.108
	PM	**PM10/2.5**		
Emission Factor lb/ton	17	1.7		
Potential Emissions lbs/hr	1.84	0.18		
Potential Emissions lbs/day	44.06	4.41		
Potential Emissions tons/year	8.04	0.80		
Limited/Controlled lbs/hr	0.09	0.01		
Controlled Emissions tons/year	0.40	0.04		

*1080 lbs/hour of metal @ 20% = 216.00 throughput (lbs/hour)

EU14 & EU 15 units combined (tons/yr) potential	166.64	16.66
EU14 & EU 15 units combined (tons/yr) controlled	8.332	0.833
EU14 & EU 15 units combined (Limited /Controlled lbs/hour)	0.184	0.018
EU14 & EU 15 units combined (Limited/Controlled tons/yr)	0.804	0.080

Methodology

Notes: Emission factors are from FIRE version 6.24.

The Pangborn Table Blast Machine #2 (EU14) and the Wheelabrator Tumble Blast Machine #1 (EU15) have a limited maximum process capacity of 216 pounds per hour each, which is based upon a conservative assumption that only 20% of the metal melted can actually reach the cleaning/finishing process based upon the limited throughput rate (1080 pounds per hour) will actually be processed in one of these two smaller machines.

*Emission unit utilizes a baghouse for PM/PM10 control that has a 95% control efficiency

Potential to Emit PM/PM10 lbs/hr = Emission Factor * ton/hr (throughput lbs/hr / 1 ton/2000 lbs)

Potential to Emit PM/PM10 lbs/day = lbs/hr * 24 (hrs/day)

Potential to Emit PM/PM10 (tons/yr) = lbs/day * 365 days/yr / (1ton/2000 lbs)

Controlled PM/PM10 (tons/yr) = Potential Emissions ton/year * (1-control efficiency)

Appendix A: Emissions Calculations
VOC and Particulate
From Mold Release Spray and Mold/Core Painting

Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, IN 46952
FESOP: 053-31902-00022
Reviewer: Janet Mobley

Material	Process	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Zip Slip LP-78	EU17	6.25	90.50%	0.0%	90.50%	0.0%	10.00%	0.03520	0.450	5.66	5.66	0.09	2.15	0.39	0.00	56.56	100%
Potential Emissions												**0.09**	**2.15**	**0.39**	**0.00**		

Material	Process	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Velvasol 425	EU18	6.57	100.00%	0.0%	100.00%	0.0%	0.00%	0.03653	10.000	6.57	6.57	2.40	57.60	10.51	0.00	n/a	75%
Velvalite ZA 848	EU18	15.6	41.66%	0.0%	41.66%	0.0%	73.00%	0.09808	10.000	6.50	6.50	6.37	152.98	27.92	9.77	8.90	75%
Velvalite OMA 991	EU18	12.55	44.78%	0.0%	44.78%	0.0%	63.50%	0.02151	10.000	5.62	5.62	1.21	29.02	5.30	1.63	8.85	75%
Potential Emissions												**6.37**	**152.98**	**27.92**	**11.41**		

Controlled Potential Emissions for EU18

	Material Usage Limitation	Control Efficiency: VOC	Control Efficiency: PM	Limited VOC lbs per Hour	Limited VOC lbs per Day	Limited VOC tons per Year	Limited PM tons per Year
Total Controlled Potential Emissions:	62.45%	0.00%	0.00%	**6.37**	**152.98**	**17.44**	**7.12**

Note: Coatings are mutually exclusive
Note: At a 62.45% annual material usage limitation, VOC emissions from EU18 are limited to less than 25 tons per year, therefore, 326 IAC 8-1-6 does not apply.
Note: Coating contain no HAPs. Therefore, coating use results in no HAP emissions.

Total Emissions	**VOC**	**PM/PM10**
Uncontrolled (tons/yr)	**28.31**	**11.41**
Controlled (tons/yr)	**17.83**	

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: HAP Emissions from PCS & Cleaning/Finishing

Company Name: **Bahr Brothers Manufacturing, Inc.**
Address City IN Zip: **2545 Lincoln Boulevard, Marion, IN 46952**
FESOP: **053-31902-00022**
Reviewer: **Janet Mobley**

Process	Maximum Rate (tons iron/hr)	Limited Rate** (tons iron/hr)	PM emission factor lb/ton	Pollutant	Ef (lb/ton produced)	Emissions before controls (ton/yr)	Emissions after control (ton/yr)
Charge Handling	1.865	0.47	0.60	chromium	2.3E-04	0.002	0.000
SCC# 3-04-003-15				nickel	4.0E-04	0.003	0.001
AP-42 Ch. 12.10				arsenic	7.8E-05	0.001	0.000
				Lead	0.002	0.019	0.005
				Manganese	0.019	0.152	0.038
				Antimony	0.001	0.009	0.002
(EU1)				**TOTAL**	**0.02**	**0.19**	**0.05**
Melting - Electric	1.865	0.47	0.90	chromium	3.4E-04	0.003	0.001
Induction Furnaces*				nickel	0.001	0.005	0.001
EPA SCC# 3-04-003-03				arsenic	0.000	0.001	0.000
AP-42 Ch. 12.10				Lead	0.055	0.445	0.112
				Manganese	0.028	0.228	0.057
				Antimony	0.002	0.014	0.003
(EU2)				**TOTAL**	**0.09**	**0.70**	**0.18**
Melting - Electric	1.865	0.47	0.90	chromium	3.4E-04	0.003	0.001
Induction Furnaces*				nickel	0.001	0.005	0.001
EPA SCC# 3-04-003-03				arsenic	0.000	0.001	0.000
AP-42 Ch. 12.10				Lead	0.055	0.445	0.112
				Manganese	0.028	0.228	0.057
				Antimony	0.002	0.014	0.003
(EU20)				**TOTAL**	**0.09**	**0.70**	**0.18**
Pouring	1.865	0.47	2.80	chromium	0.001	0.009	0.002
SCC# 3-04-003-18				nickel	0.002	0.015	0.004
				arsenic	0.000	0.003	0.001
				Lead	0.011	0.088	0.022
				Manganese	0.087	0.709	0.179
				Antimony	0.005	0.042	0.011
(EU3)				**TOTAL**	**0.11**	**0.87**	**0.22**
Cooling	1.865	0.47	1.40	chromium	0.001	0.004	0.001
SCC# 3-04-003-18				nickel	0.001	0.008	0.002
				arsenic	1.8E-04	0.001	0.000
				Lead	0.005	0.044	0.011
				Manganese	0.043	0.355	0.089
				Antimony	0.003	0.021	0.005
(EU4)				**TOTAL**	**0.05**	**0.43**	**0.11**
Shakeout	1.865	0.47	3.20	chromium	0.001	0.010	0.003
SCC# 3-04-003-31				nickel	0.002	0.018	0.004
				arsenic	0.000	0.003	0.001
				Lead	0.012	0.101	0.025
				Manganese	0.099	0.810	0.204
				Antimony	0.006	0.048	0.012
(EU5)				**TOTAL**	**0.12**	**0.99**	**0.25**

Methodology
See next page.

Appendix A: HAP Emissions from PCS & Cleaning/Finishing

Process	Maximum Rate (tons iron/hr)	Limited Rate** (tons iron/hr)	PM emission factor lb/ton	Pollutant	Ef (lb/ton produced)	Emissions before controls (ton/yr)	Emissions after control (ton/yr)
Pangborn Table Blast Machine #1 (EU13) SCC# 3-04-003-40	1.12	0.28	17.00	chromium	0.006	0.032	0.008
				nickel	0.011	0.056	0.014
				arsenic	0.002	0.011	0.003
				Lead	0.065	0.321	0.080
				Manganese	0.527	2.585	0.646
				Antimony	0.031	0.154	0.039
				TOTAL	**0.64**	**3.16**	**0.79**
Pangborn Table Blast Machine #2 (EU14) SCC# 3-04-003-40	0.22	0.06	17.00	chromium	0.006	0.006	0.002
				nickel	0.011	0.011	0.003
				arsenic	0.002	0.002	0.001
				Lead	0.065	0.063	0.017
				Manganese	0.527	0.508	0.138
				Antimony	0.031	0.030	0.008
				TOTAL	**0.64**	**0.62**	**0.169**
Wheelabrator Tumble Blast Machine #1 (EU15) SCC# 3-04-003-40	0.22	0.06	17.00	chromium	0.006	0.006	0.002
				nickel	0.011	0.011	0.003
				arsenic	0.002	0.002	0.001
				Lead	0.065	0.063	0.017
				Manganese	0.527	0.508	0.138
				Antimony	0.031	0.030	0.008
				TOTAL	**0.64**	**0.62**	**0.169**
			EU14 & EU15 combined	Manganese		**1.02**	**0.28**
				Totals		**1.24**	**0.34**

Methodology

See page 16.

* Note: Emission factors were carried over from the previous permit (F053-11804-00022). HAP emission factors for the electric induction furnaces are based on the PM emission factor from an IDEM approved stack test performed for another source on December 10, 2005, and percent of PM that is HAP based on information from SPECIATE, v 3.1. Lead emission factor from FIRE version 6.24.

HAP emission factors for A-Line pouring are based on PM emission factor used in a Title V permit for another source from previous in-house stack test and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

All other HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

Foundry processes include charge handling, induction melting furnaces, pouring, cooling and shakeout.

Finishing processes include the two table blast machines and the wheelabrator tumble blast machine.

Appendix A: HAP Emissions from PCS & Cleaning/Finishing

Company Name: **Bahr Brothers Manufacturing, Inc.**
Address City IN Zip: **2545 Lincoln Boulevard, Marion, IN 46952**
FESOP: **053-31271-00022**
Reviewer: **Janet Mobley**

USEPA Speciate v 3.1 Data	
Metal	Gen. Foundry
Manganese	3.100%
Chromium	0.038%
Nickel	0.067%
Arsenic	0.013%
Antimony	0.185%
Lead	0.385%

Total Potential Emissions Before Controls - Foundry Processes	
chromium	0.03 tons/year
nickel	0.05 tons/year
arsenic	0.01 tons/year
Lead	1.14 tons/year
Manganese	2.48 tons/year
Antimony	0.15 tons/year
Total	**3.87 tons/year**

Total Limited Emissions After Controls - Foundry Processes	
0.01	tons/year
0.01	tons/year
0.00	tons/year
0.29	tons/year
0.63	tons/year
0.04	tons/year
0.97	**tons/year**

Total Potential Emissions Before Controls - Cleaning/Finishing	
chromium	0.04 tons/year
nickel	0.08 tons/year
arsenic	0.02 tons/year
Lead	0.45 tons/year
Manganese	3.60 tons/year
Antimony	0.21 tons/year
Total	**4.40 tons/year**

Total Limited Emissions After Controls - Cleaning/Finishing	
0.01	tons/year
0.02	tons/year
0.00	tons/year
0.11	tons/year
0.92	tons/year
0.06	tons/year
1.13	**tons/year**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons

Appendix A: Secondary Metal Production
VOC and HAP Emissions from Sand Handling

Company Name: **Bahr Brothers Manufacturing, Inc.**
Address City IN Zip: **2545 Lincoln Boulevard, Marion, IN 46952**
FESOP: **053-31902-00022**
Reviewer: **Janet Mobley**

The VOC and HAP emissions from the sand handling process are dependent upon the type of binders being utilized in each particular machin

The four (4) processes using the binder system are: Floor Mixer (EU8), Bi-Room Mixer (EU9), Core Room Mixer (EU10) and Line Mixer (EU11

Binder System Used: Phenolic Urethane Nobake Binder (Ashland's "Pepset" Process

Binder System Used: Phenolic Urethane Nobake Binder (Ashland's "Pepset" Process
(for cores made in-house only)

Part I Binder (Pep Set I 1675 HR) Usage Rate (Lbs. of Resin/Year): **197,200**

Volatile Components	% in Product [1]	% Evaporated [2]	VOC Emissions (Tons/Yr)
Formaldehyde *	0.0	2.0	0.00
Aromatic Petroleum Distillates	7.5	100.0	7.40
Phenol *	7.5	0.0	0.00
Naphthalene *	0.0	5.85	0.00
1,2,4-Trimethyl Benzene	2.0	5.85	0.12
			7.51

Part II Binder (Pep Set X II 2000) Usage Rate (Lbs. of Resin/Year): **163,200**

Volatile Components	% in Product [1]	% Evaporated [2]	VOC Emissions (Tons/Yr)
MDI *	30.0	0.0	0.00
Polymeric Diphenylmethane Di	35.0	0.0	0.00
1,2,4-Trimethyl Benzene	2.0	5.85	0.12
Aromatic Petroleum Distillates	3.0	50.0	1.48
			1.59

Pepset Catalyst 3451 Usage Rate (Lbs. of Resin/Year): **11,480**

Volatile Components	% in Product [1]	% Evaporated [3]	VOC Emissions (Tons/Yr)
Aromatic Petroleum Distillates	81.5	100.0	4.68
Naphthalene *	8.5	100.0	0.49
			5.17

Pepset Catalyst 3500 Usage Rate (Lbs. of Resin/Year): **4,920**

Volatile Components	% in Product [1]	% Evaporated [3]	VOC Emissions (Tons/Yr)
Aromatic Petroleum Distillates	75.5	100.0	4.33
1,2,4-Trimethyl Benzene	15.5	100.0	0.89
Isopropylbenzene	5.5	100.0	0.32
Xylene *	7.0	100.0	0.40
			5.94

Total VOC emissions (tons/yr):	20.21
Total HAP * emissions (tons/yr):	0.89

Methodology
Notes:

Maximum Capacities based on twice the 1999 annual usage, as supplied by the source.
These emissions result from the presence of organic resins which are released during mixing
The following sources for the Emission factors were carried over from the previous permit (F053-11804-00022)
1 The % in product value is derived from the vendor's MSDS.
2 The % evaporated value is derived from the Form R "Gold Book" for this type of core making system.
Data for Aromatic Petroleum Distillates is not specifically included in From R, so a worst case of 100% is assumed
3 The % evaporated value is assumed to be 100% because the Form R "Gold Book" did not include emissions from the use of catalysts
* HAPs are the pollutants marked with an asterik (*) after their name.

Potential VOC and HAP emisions (tons/yr) = usage rate (lbs. of resin/year) * (% VOC or HAP/100)* (% evaporation/ 100)* 1/2000 (lbs/ton)

Appendix A: Secondary Metal Production

VOC and HAP Emissions from Foundry Processes

Company Name: **Bahr Brothers Manufacturing, Inc.**

Address City IN Zip: **2545 Lincoln Boulevard, Marion, IN 46952**

FESOP: **053-31902-00022**

Reviewer: **Janet Mobley**

Pouring/Casting, Casting Cooling and Shakeout Processes

Binder System Used: Phenolic Urethane Nobake Binder (Ashland's "Pepset" Process)

For cores made in-house

Pollutant Name	Emission Factor (lbs pollutant/lbs resin)	Maximum Resin Usage (lbs resin/yr)	HAP Emissions (tons/yr)
Acrolein	0.000005	360400	9.01E-04
Benzene	0.011209	360400	2.02
Formaldehyde	0.00001	360400	1.80E-03
Hydrogen Cyanide	0.000029	360400	5.23E-03
M-Xylene	0.000097	360400	0.02
Napthalene	0.000049	360400	8.83E-03
O-Xylene	0.000049	360400	8.83E-03
Phenol	0.000975	360400	0.18
Toluene	0.000634	360400	0.11
Total Aromatic Amines	0.000049	360400	8.83E-03
Total C2 to C5 Aldehydes	0.00307	360400	0.55
Total Hydrocarbons	0.012159	360400	2.19
		Total VOCs	**5.11**
		Total HAPs	**2.91**

Methodology

The following sources for the Emission factors were carried over from the previous permit (F053-11804-00022):

Notes: Emission factors are from the American Foudrymen's Society (Mosher) research paper.

Maximum resin usage rate is estimated to be twice the actual 1998 total resin usage (provided by source).

The "Acrylic-Epoxy Cold Box Binder System was not identified in the Mosher research paper, so Green Sand Binder emission factors were used.

Potential VOC and HAP* emissions (ton/yr) = (Emission factor (lbs pollutant/lbs resin) * maximum resin usage (lbs of resin/yr)) / 2000 (lbs/ton)

*Total HAPs (tons/yr) include all pollutants except Total Hydrocarbons and Hydrogen Cyanide.

Total VOC (tons/yr) includes all the pollutants listed.

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

Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, Indiana 46952
Permit Number: 053-31902-00022

Reviewer: Janet Mobley

Emission Unit	Max. Heat Input Capacity (MMBtu/hr)
Thermal Sand Reclaimer (EU6)	1.00
Thermal Sand Reclaimer (EU19)***	0.25
Heat Treat Furnace (EU12)	3.04
2 Ladle Preheaters (EU16)	0.66
Total	4.95

***Thermal Sand Reclaimer approved under Exemption No. 053-18626-00022 Issued June 7, 2004

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
4.95	1000	43.36

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.04	0.16	0.16	0.01	2.17	0.12	1.82

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

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

Company Name: Bahr Brothers Manufacturing, Inc.
Address City IN Zip: 2545 Lincoln Boulevard, Marion, Indiana 46952
Permit Number: 053-31902-00022
Reviewer: Janet Mobley

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.553E-05	2.602E-05	1.626E-03	3.903E-02	7.372E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.084E-05	2.385E-05	3.035E-05	8.239E-06	4.553E-05

Total HAPs	4.092E-02

Methodology is the same as page 1.

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

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,602	0.0	0.0
Summed Potential Emissions in tons/yr	2,601.82		
CO2e Total in tons/yr		2,617.55	

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Bahr Brothers Manufacturing, Inc.
Source Address: 2545 Lincoln Boulevard, Marion, Indiana 46952
Permit Number: 053-31902-00022
Reviewer: Janet Mobley

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Passenger vehicles (entering plant) (one-way trip)	55.0	1.0	55.0	2.5	137.5	200	0.038	2.1	760.4
Passenger vehicles (leaving plant) (one-way trip)	55.0	1.0	55.0	2.5	137.5	200	0.038	2.1	760.4
Trucks (entering plant) (one-way trip)	4.0	1.0	4.0	50.0	200.0	500	0.095	0.4	138.3
Trucks (leaving plant) (one-way trip)	4.0	1.0	4.0	50.0	200.0	500	0.095	0.4	138.3
		Totals	**118.0**		**675.0**			**4.9**	**1797.3**

Average Vehicle Weight Per Trip = 5.7 tons/trip
Average Miles Per Trip = 0.04 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	5.7	5.7	5.7	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.515	0.103	0.0253	lb/mile
Mitigated Emission Factor, Eext =	0.471	0.094	0.0231	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Passenger vehicles (entering plant) (one-way trip)	0.20	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Passenger vehicles (leaving plant) (one-way trip)	0.20	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Trucks (entering plant) (one-way trip)	0.04	0.01	0.00	0.03	0.01	0.00	0.03	0.01	0.00
Trucks (leaving plant) (one-way trip)	0.04	0.01	0.00	0.03	0.01	0.00	0.03	0.01	0.00
Totals	**0.46**	**0.09**	**0.02**	**0.42**	**0.08**	**0.02**	**0.42**	**0.08**	**0.02**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
2-Stroke Lean-Burn (2SLB) Engines
Back-up Emergency Generator

Company Name: **Bahr Brothers Manufacturing, Inc.**
Source Address: **2545 Lincoln Boulevard, Marion, Indiana 46952**
Permit Number: **053-31902-00022**
Reviewer: **Janet Mobley**

Maximum Output Horsepower Rating (hp)	40.21
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	7500
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	151
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.15

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	3.84E-02	4.83E-02	3.84E-02	5.88E-04	3.17E+00	1.20E-01	3.86E-01
Potential Emissions (tons/yr)	0.003	0.004	0.003	0.000	0.24	0.01	0.03

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	7.76E-03	0.001
Acrolein	7.78E-03	0.001
Benzene	1.94E-03	0.000
1,3-Butadiene	8.20E-04	0.000
Ethylbenzene	1.08E-04	0.000
Formaldehyde	5.52E-02	0.004
Methanol	2.48E-03	0.000
Methylene Chloride	1.47E-04	0.000
Hexane	4.45E-04	0.000
Toluene	9.63E-04	0.000
2,2,4-Trimethylpentane	8.46E-04	0.000
Total PAH**	1.34E-04	0.000
	Total	**0.01**

HAP pollutants consist of the twelve highest HAPs included in AP-42 Table 3.2-1.
**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-1
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

	Greenhouse Gas (GHG)		
Greenhouse Gases (GHGs)	CO2	CH4	N2O
Emission Factor in lb/MMBtu*	110	1.25	
Emission Factor in lb/MMcf**			2.2
Potential Emission in tons/yr	8.29	0.09	0.00
Summed Potential Emissions in tons/yr		8.39	
CO2e Total in tons/yr		10.32	

Methodology
*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP 42, Table 1.4-2. The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N20 GWP (310).

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Steve Carl
Bahr Brothers Manufacturing, Inc.
2545 Lincoln Blvd
Marion, IN 46592

DATE: January 7, 2013

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

SUBJECT: Final Decision
Federally Enforceable State Operating Permit Renewal
053-31902-00022

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Tim Street, Responsible Official
Joseph VanCamp, Cornerstone Environmental
OAQ Permits Branch Interested Parties List

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

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Commissioner

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(317) 232-8603
Toll Free (800) 451-6027
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January 7, 2013

TO: Marion Public Library

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

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

Applicant Name: **Bahr Brothers Manufacturing, Inc.**
Permit Number: **053-31902-00022**

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

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

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	PWAY 1/7/2013 Bahr Brothers Manufacturing, Inc. 053-31902-00022 (final)		
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

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2		Tim Street VP Bahr Brothers Manufacturing, Inc. 2545 LIncoln Blvd Marion IN 46592 *(RO CAATS)*									
3		Marion City Council and Mayors Office 301 S. Branson Street Marion IN 46952-4052 *(Local Official)*									
4		Grant County Commissioners 401 South Adams Marion IN 46953 *(Local Official)*									
5		Ms. Mary Shipley 10968 E 100 S Marion IN 46953 *(Affected Party)*									
6		Grant County Health Department 401 S. Adams St, Courthouse Complex Marion IN 46953-2031 *(Health Department)*									
7		Mr. Thomas Lee Clevenger 4005 South Franks Lane Selma IN 47383 *(Affected Party)*									
8		Mr. Joseph VanCamp Cornerstone Environmental 312 E Diamond St. Kendallville IN 46755 *(Consultant)*									
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