INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 5, 2013

RE: North Vernon Industry Corp / 079-32661-00018

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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) 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.

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

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

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

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

Enclosures
FNTV-PMOD.doc 3/27/08

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Mr. Bruce Johnson
North Vernon Industry Corporation
3750 4th Street
North Vernon, IN 47265

June 5, 2013

Re: 079-32661-00018
Significant Permit Modification to
Part 70 Renewal No.: T 079-29942-00018

Dear Mr. Johnson:

North Vernon Industry Corporation was issued a Part 70 Operating Permit Renewal on April 4, 2011 for a gray iron foundry. A letter requesting changes to this permit was received on August 17, 2012. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

North Vernon Industry Corporation has applied to make the following changes:

- Changing the limits for the P2exp pouring/cooling, P2exp mold dump and P2exp mold sand reclamation units.
- Removing P2exp pre-finishing operation (P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation and P2exp-Grinding Station).
- Changing HAP emission factors for the melting operations.
- Adding organic emission factors for furan P2exp-pouring/cooling and shakeout.
- Increasing the maximum throughput for both the P2exp Pouring/Cooling and P2exp Mold Dump from 6 ton/hr to 8 ton/hr and the P2exp-Mold Sand Reclamation from 10 ton/yr to 28 ton/yr.
- Increasing the sand throughput limit for P2exp-Core Mixer from 66,000 lb per year to 450 tons per year.

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act – IC 4-21.5-3-5. If you have any questions on this matter, please contact Heath Hartley, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Heath Hartley or extension (2-8217), or dial (317) 232-8217.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

hh

cc: File – Jennings County
Jennings County Health Department
U.S. EPA, Region V
IDEM Southeast Regional Office
Compliance and Enforcement Branch

Mr. Jack Bodi
North Vernon Industry Corporation
3750 4th Street
North Vernon, IN 47265

Ms. Brenda Mathew
Keramida
401 N. College Ave.
Indianapolis, IN 46202

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Part 70 Operating Permit
OFFICE OF AIR QUALITY

North Vernon Industry Corporation
3750 4th Street
North Vernon, Indiana 47265

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

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

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

Operation Permit No.: T079-29942-00018	
Issued by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 4, 2011 Expiration Date: April 4, 2016

First Significant Permit Modification No.: 079-32661-00018	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 5, 2013 Expiration Date: April 4, 2016

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Certification
Emergency Occurrence Report
Quarterly Report
Quarterly Deviation and Compliance Monitoring Report

Attachment A: 40 CFR Part 63, Subpart ZZZZ

Attachment B: 40 CFR Part 63, Subpart ZZZZZ

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	3750 4th Street, North Vernon, Indiana 47265
General Source Phone Number:	(812)-346-8772
SIC Code:	3442 (Metal Doors, Sash, Frames, Molding and Trim Manufacturing), 3321 (Gray and Ductile Iron Foundries)
County Location:	Jennings
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

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

(a) One (1) Melting Operation consisting of the following emission units:

(1) Two (2) electric induction furnaces, identified as P1-EIF #1 and P1-EIF#2, constructed in 1998, each having a nominal melting rate of 6.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 1), and exhausting to stack P1B1.

(2) One (1) scrap and charge handling operations, identified as P1-Charge, constructed in 1998, with a rated capacity of 12.00 tons of scrap metal per hour, exhausting inside the building, then to general ventilation.

(3) One (1) natural gas-fired ladle preheater, identified as P1-Ladle Preheater, constructed in 1998 with a rated capacity of 0.4 MMBtu/hr, exhausting inside the building, and then to general ventilation.

(b) One (1) mold making operation consisting of the following emission units:

(1) One (1) mold sand handling operation, identified as P1-Mold Sand Handling, constructed in 1998, with a rated capacity of 55.00 tons of sand per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2.

(2) One (1) mold making machine, identified as P1-Molding Machine, constructed in 1998, using 0.6 pounds of plastic per hour, 0.07 gallons of release agent per hour and 5.20 gallons of mold wash per hour, exhausting inside the building, then to general ventilation.

(c) One (1) metal floor pouring, cooling area operation, identified as P1-Pouring/Cooling, constructed in 1998, with a rated capacity of 12.00 tons of metal per hour, utilizing a vacuum suction process during pouring and cooling operations, exhausting inside the building, and then to general ventilation.

(d) One (1) shakeout unit/system for casting operation, identified as P1-Shakeout, constructed in 1998, with a rated capacity of 20.00 tons per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2. ID No. Area 2 baghouse will recycle all the sand collected back into the mold sand process.

(e) One (1) core making operation consisting of the following emission units:

(1) One (1) core sand process sand handling operation, identified as P1-Core Sand Handling, constructed in 1998, with a rated capacity of 0.125 tons of sand per hour, exhausting inside the building, then to general ventilation.

(2) One (1) Beta set core machine, identified as P1-Core Machine, constructed in 1998, with a rated capacity of 0.125 tons of cores per hour, using 1.3 gallons of resin per hour, 0.75 gallons of release agent 1 per hour, and 0.30 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) butane torch used to flash off excess core release agent, identified as P1-Butane Torch, constructed in 1998, with a maximum firing rate of 0.144 gallons per hour and 0.014 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(f) One (1) Pre-Finishing Operation consisting of the following emission units:

(1) One (1) pre-finish station which contains three grinders, identified as P1-Pre-Finish Station, constructed in 1998, with a total rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(2) One (1) core removal station, identified as P1-Core Removal Operation, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(3) One (1) shot blast machine, identified as P1-Shot Blast Machine #1, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 4), and exhausting to stack P1B4.

(4) Five (5) coarse grinding stations, identified as P1-Grinding Station #1 through P1-Grinding Station #5, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(g) One (1) Finishing Operation consisting of the following emission units:

(1) Filler/putty application process, identified as P1-Filler/Putty Application, constructed in 1998, with a rated capacity of 1.75 gallons per hour of filler/putty, exhausting inside the building, then to general ventilation.

(2) One (1) paint booth, identified as P1-Paint Booth #2, constructed in 1998, with a rated capacity of 6.88 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.

(3) One (1) paint booth, identified as P1-Paint Booth #3, constructed in 1998, with a rated capacity of 1.43 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.

(4) One (1) putty station used for additional repair, identified as P1-Putty Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, exhausting inside the building, then to general ventilation.

(5) One (1) final inspection paint booth, identified as P1-Final Inspection Paint Booth, constructed in 1998, with a rated capacity of 0.50 gallons of primer per hour, using dry filters for overspray control, and exhausting to Paint Filter–Final Inspection.

(6) One (1) buffing station containing three buffers, identified as P1-Buffing Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID. No. Area 3), and exhausting to stack P1B3.

(7) One (1) final inspection buffing station, identified as P1-Final Inspection Buffing Station, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, controlled by the final buffing dust collector, (ID No. Final Inspection Collector), exhausting inside the building, then to general ventilation.

(h) One (1) Core Making Operation, consisting of the following emissions units:

(1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, constructed in 2004, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(2) One (1) Beta set core machine, identified as P2-Core Machine, constructed in 2004, with a rated capacity of 750 pounds of cores per hour, using 2.93 gallons of resin per hour, 1.25 gallons of release agent 1 per hour, and 0.50 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, constructed in 2004, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(i) One (1) Mold Making Operation, consisting of the following emissions units:

(1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.

(2) One (1) molding machine, identified as P2-Molding Machine, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) mold wash, identified as P2-Mold Wash, constructed in 2004, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, constructed in 2004, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(j) One (1) Melting Operation, consisting of the following emissions units:

(1) One (1) charge handling system utilizing mechanical conveyors and magnetic overhead cranes, identified as P2-Charge, constructed in 2004, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.

(2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, constructed in 2004, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.

(3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, constructed in 2004, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.

(k) One (1) Floor Molding Operation, consisting of the following emissions units:

(1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, constructed in 2004, with a maximum rate of 18 tons of metal per hour, utilizing a vacuum

suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.

(2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, constructed in 2004, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.

(l) One (1) Pre-Finishing Operation, consisting of the following emissions units:

(1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, constructed in 2004, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, constructed in 2004, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.

(3) One (1) core removal operation, identified as P2-Core Removal Operation, constructed in 2004, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, constructed in 2004, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(m) One (1) Finishing Operation, consisting of the following emissions units:

(1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, constructed in 2004, with a maximum rate 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.

(2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, constructed in 2004, each utilizes an HVLP spray gun, using dry filters for particulate control, exhausting inside the building, then to general ventilation..

(A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.

(B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.

(3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, constructed in 2004, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.

(4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.

(5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(n) One (1) Furan Mold Making Operation, consisting of the following emissions units:

(1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of 28 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 2,000 pounds of sand per minute, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(o) One (1) Casting Line, consisting of the following emissions units:

(1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 8 tons of metal per hour, exhausting inside the building, then to general ventilation.

(2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of 8 tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(p) One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)]

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

(a) Degreasing operations that do not exceed 145 gallons per 12 months, including:

(1) One (1) parts washing station, identified as P1-Maintenance Parts Washing Station, using a maximum of 0.002 gallons of washing solution per hour. [326 IAC 8-3-2]

(2) One (1) Maintenance Department parts washing station, identified as P2-Maintenance Parts Washing Station, rated at 0.002 gallons of parts wash solution per hour. [326 IAC 8-3-2]

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

(c) 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. [326 IAC 6-3]

(d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

(e) Diesel generators not exceeding 1600 horsepower, including:

(1) One (1) emergency generator, identified as P1-Emergency Generator, using a maximum 8.8 gallons of diesel fuel #2 per hour.

(2) Two (2) emergency generators, identified as P2-Emergency Generator #1 and P2-Emergency Generator #2, each is rated at 5.6 gallons of No. 2 diesel fuel per hour (125 kilowatts).

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T079-29942-00018, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), 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) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T079-29942-00018 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

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

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

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

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (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 preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b) or (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 2-7-20(b)(1), (c)(1), and (e)(2).

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

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

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C **SOURCE OPERATION CONDITIONS**

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

The Permittee shall not operate an incinerator 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.5 Fugitive Dust Emissions [326 IAC 6-4]

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

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

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

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three

(3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

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

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

(a) 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)] [40 CFR 64][326 IAC 3-8]

(a) 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. 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.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

C.12 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.13 Risk Management Plan [326 IAC 2-7-5(11)] [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.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(I) 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not

limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue

MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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 Part 70 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) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and 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 actions 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 daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(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.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in

326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part 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

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

Stratospheric Ozone Protection

C.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:

(a) One (1) Melting Operation consisting of the following emission units:

(1) Two (2) electric induction furnaces, identified as P1-EIF #1 and P1-EIF#2, constructed in 1998, each having a nominal melting rate of 6.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 1), and exhausting to stack P1B1.

(2) One (1) scrap and charge handling operations, identified as P1-Charge, constructed in 1998, with a rated capacity of 12.00 tons of scrap metal per hour, exhausting inside the building, then to general ventilation.

(3) One (1) natural gas-fired ladle preheater, identified as P1-Ladle Preheater, constructed in 1998 with a rated capacity of 0.4 MMBtu/hr, exhausting inside the building, and then to general ventilation.

(b) One (1) mold making operation consisting of the following emission units:

(1) One (1) mold sand handling operation, identified as P1-Mold Sand Handling, constructed in 1998, with a rated capacity of 55.00 tons of sand per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2.

(2) One (1) mold making machine, identified as P1-Molding Machine, constructed in 1998, using 0.6 pounds of plastic per hour, 0.07 gallons of release agent per hour and 5.20 gallons of mold wash per hour, exhausting inside the building, then to general ventilation.

(c) One (1) metal floor pouring, cooling area operation, identified as P1-Pouring/Cooling, constructed in 1998, with a rated capacity of 12.00 tons of metal per hour, utilizing a vacuum suction process during pouring and cooling operations, exhausting inside the building, and then to general ventilation.

(d) One (1) shakeout unit/system for casting operation, identified as P1-Shakeout, constructed in 1998, with a rated capacity of 20.00 tons per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2. ID No. Area 2 baghouse will recycle all the sand collected back into the mold sand process.

(e) One (1) core making operation consisting of the following emission units:

(1) One (1) core sand process sand handling operation, identified as P1-Core Sand Handling, constructed in 1998, with a rated capacity of 0.125 tons of sand per hour, exhausting inside the building, then to general ventilation.

(2) One (1) Beta set core machine, identified as P1-Core Machine, constructed in 1998, with a rated capacity of 0.125 tons of cores per hour, using 1.3 gallons of resin per hour, 0.75 gallons of release agent 1 per hour, and 0.30 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside

the building, then to general ventilation.

(3) One (1) butane torch used to flash off excess core release agent, identified as P1-Butane Torch, constructed in 1998, with a maximum firing rate of 0.144 gallons per hour and 0.014 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(f) One (1) Pre-Finishing Operation consisting of the following emission units:

(1) One (1) pre-finish station which contains three grinders, identified as P1-Pre-Finish Station, constructed in 1998, with a total rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(2) One (1) core removal station, identified as P1-Core Removal Operation, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(3) One (1) shot blast machine, identified as P1-Shot Blast Machine #1, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 4), and exhausting to stack P1B4.

(4) Five (5) coarse grinding stations, identified as P1-Grinding Station #1 through P1-Grinding Station #5, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.

(g) One (1) Finishing Operation consisting of the following emission units:

(6) One (1) buffing station containing three buffers, identified as P1-Buffing Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID. No. Area 3), and exhausting to stack P1B3.

(7) One (1) final inspection buffing station, identified as P1-Final Inspection Buffing Station, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, controlled by the final buffing dust collector, (ID No. Final Inspection Collector), exhausting inside the building, then to general ventilation.

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

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

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

(a) For the P1 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and the PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P1-EIF#1, P1-EIF#2	74,400 total	0.5	0.56
P1-Shakeout, P1-Mold Sand Handling	74,400 each	0.32	0.32
P1-Shot Blast Machine #1	74,400	0.03	0.03
P1-Core Removal, P1-Pre-Finish, P1-Grinding #1 - #5	74,400 each	0.09	0.09
P1-Buffing Booth	74,400	0.08	0.08
P1-Charge	74,400	0.6	0.36
P1-Pouring/Cooling	74,400	0.1	0.1
P1-Core Sand Handling	74,400	0.075	0.011
P1-Final Inspection Buffing	74,400	0.0045	0.0045
P1-Putty Booth	74,400	0.0045	0.0045

Compliance with the limits above will limit the PM and PM10 emissions to less than 100 tons per year and render 326 IAC 2-2 not applicable to the 1998 modification.

(b) The emission units, identified as P1, constructed in 1998 have uncontrolled VOC emissions greater than 100 tons per year.

For the P1 emission units listed below, the VOC limits are as follows:

(1) The amount of VOC used in the P1-Molding Machine and P1-Core Machine combined with the amount of VOC used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth shall be limited to less than 89.33 tons per twelve (12) consecutive month period.

(2) The P1-Shakeout and P1-Pouring/Cooling operations shall be limited to 74,400 tons of metal throughput per twelve (12) consecutive month period.

(3) The P1-Shakeout and P1-Pouring/Cooling operations shall be limited to less than a total of 0.18 pounds of VOC per ton of metal throughput.

Compliance with the limits above will limit VOC emissions of the emission units, identified as P1 to less than 100 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 1998 modification.

(c) The CO emissions from emission units, identified as P1-shakeout and P1-Pouring/Cooling, constructed in 1998 have uncontrolled emissions greater than 100 tons per year.

The metal throughput to the P1-Shakeout and P1-Pouring/Cooling operations shall be limited to 74,400 tons of metal throughput per twelve (12) consecutive month period and the CO emissions shall be less than 2.40 pounds per ton of metal throughput.

Compliance with the limits above will limit CO emissions of the emission units, identified as P1-shakeout and P1-Pouring/Cooling and other emission units to less than 100 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 1998 modification.

D.1.2 HAP Minor Limits [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

(a) Metal throughput to P1 emissions units shall be limited to less than 74,400 tons per twelve (12) consecutive month period.

(b) Particulate emissions from the P1 emission units shall be limited as specified in Condition D.1.1.

(c) The amount of HAP used in the P1-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, P2-Paint Booth #2 (listed in Section D.4) and P2exp-Pouring/Cooling shall be limited such that the HAPs emissions are less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than (19.6) tons per twelve (12) consecutive month period for any combination of HAPs.

Compliance with these limits and the HAP emissions from the other emission units at this source will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period and render the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.

D.1.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from these emission units shall not exceed the pound per hour limitation shown in the table below:

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Electric Induction Furnaces (each)	6	13.6
P1-Charge	12	21.7

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
P1-Pouring/Cooling	12	21.7
P1-Core Removal	20	30.5
P1-Shot blast Machine #1	20	30.5
P1-Pre-Finish	20	30.5
P1-Grinding Stations #1-#5	20	30.5
P1-Buffing Booth	20	30.5
P1-Final Insp. Buffing	20	30.5
P1-Shakeout	20	30.5
P1-Core Sand Handling	0.125	1.02
P1-Mold Sand Handling	55	45.5

The particulate emission rates were calculated as described below.

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

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

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

D.1.4 Volatile Organic Compounds (BACT) [326 IAC 8-1-6]

Pursuant to CP 079-5754-00018, issued August 26, 1996, the BACT for the P1-Molding Machine shall be the use of proprietary high solids pattern coating with less than or equal to 6 pounds of VOC per gallon of coating less water.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.6 Particulate Control [326 IAC 2-7-6(6)]

(a) To comply with Conditions D.1.1, D.1.2, and D.1.3, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces, the mold sand handling operation and shakeout operations, the shot blast machines, the core removal station, the prefinish station, the coarse grinding stations, the buffing station and final inspection buffing station at all times that these facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units

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

(c) The integral vacuum system shall be in operation at all times when the floor pouring/cooling is in operation.

D.1.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

(a) In order to determine compliance with Conditions D.1.1(a) and D.1.3, the Permittee shall perform PM and PM_{10} testing by May 31, 2013 on baghouses controlling the two (2) electric induction furnaces, identified as P1-EIF#1 and P1-EIF#2 (ID No. Area 1), utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(b) Within 180 days after issuance of this Permit T079-29942-00018, in order to demonstrate compliance with Condition D.1.1(a), the Permittee shall perform PM and PM10 testing on baghouse controlling the P1-Shakeout and Sand Mold handling, utilizing methods as approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) Within 180 days after issuance of this Permit T079-29942-00018, in order to demonstrate compliance with Condition D.1.1(a), the Permittee shall perform PM and PM10 testing on either baghouse controlling P1-shot blast machine #1 or P1-shot blast machine #2 or P1-Grinding station #1-#5, utilizing methods as approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

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

D.1.8 HAPs Minor Limit [326 IAC 2-4.1] [40 CFR 63]

Compliance with the HAP limits in condition D.1.2(c) shall be demonstrated using the following equation:

HAPs emissions = $H_{P1\text{-Core Making}} + A_{P1\text{-Filler/Putty Application}} + H_{P1\text{-Paint Booth \#2}}$
$+ H_{P1\text{- Paint Booth \#3}} + H_{P1\text{- Final Inspection Paint Booth}}$
$+ H_{P2\text{-Core Making}} + H_{P2\text{- P2exp-Mold Mixer}} + H_{P2\text{-Filler/Putty Application}}$
$+ H_{P2\text{-Paint Booth \#1}} + H_{P2\text{-Paint Booth \#2}} + H_{P2\text{exp-Pouring/Cooling}} < 19.6$
(tons/yr) HAP Emissions

Where:

$H_{P1\text{-}Core\ Making}$ = [(Throughput P1-Core Making (lb resin) x Formaldehyde Emission Factor (0.001 lb/lb resin)) + (Throughput P1-Core Making (lb resin) x Phenol Emission Factor (0.0005 lb/lb resin))] x 1 ton / 2000 lb

$H_{P1\text{-}Filler/Putty\ Application}$ = Input of Styrene to P1-Filler/Putty

$H_{P1\text{-}Paint\ Booth\ \#2}$ = Input of Styrene to P1-Paint Booth #2

$H_{P1\text{-}\ Paint\ Booth\ \#3}$ = Input of Styrene to P1-Paint Booth #3

$H_{P1\text{-}\ Final\ Inspection\ Paint\ Booth}$ = Input of Styrene to P1-Final Inspection Paint Booth

$H_{P2\text{-}Core\ Making}$ = [(Throughput P2-Core Making (lb resin) x Formaldehyde Emission Factor (0.001 lb/lb resin)) + (Throughput P2-Core Making (lb resin) x Phenol Emission Factor (0.0005 lb/lb resin))] x 1 ton / 2000 lb

$H_{P2exp\text{-}Mold\ Mixer}$ = Input of HAPs to the P2exp-Mold Mixer

$H_{P2\text{-}Filler/Putty\ Application}$ = Input of Styrene to P2-Filler/Putty

$H_{P2\text{-}Paint\ Booth\ \#1}$ = Input of Styrene to P2-Paint Booth #1

$H_{P2\text{-}\ Paint\ Booth\ \#2}$ = Input of Styrene to P2-Paint Booth #2

$H_{P2exp\text{-}Pouring/Cooling}$ = Throughput P2exp-Pouring/Cooling (tons metal) x Total HAP Emission Factor (1.08 lb/ton metal))] x 1 ton / 2000 lb

D.1.9 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the electric induction furnaces (stack P1B1), mold sand handling (stack P1B2), shakeout operations (stack P1B2), pre-finishing (stack P1B5), core removal station (stack P1B5), shot blast machines (stack P1B4), coarse grinding operations (stack P1B5), buffing station (stack P1B3) stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.10 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces (ID No. Area 1), the mold sand handling (ID No. Area 2), the shakeout operations (ID No. Area 2), the pre-finishing station (ID No. Area 5), the core removal station (ID No. Area 5), the shot blast machines (ID No. Area 4), the coarse grinding station (ID No. Area 5), buffing station (ID No. Area 3), and final inspection buffing station operations (ID No. Final Inspection Collector) at least once per day when these units 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 1.0 and 8.0 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.

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

D.1.11 Broken or Failed Bag Detection [40 CFR 64]

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

D.1.12 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall:

(1) Maintain records of the throughput of metal to the P1 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P1 emission units.

(2) Maintain records of the amount and VOC content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P1 emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total VOC usage for each month. The records maintained shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.1.2.

(b) To document the compliance status with Condition D.1.9, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Area 1), the mold sand handling and shakeout operations exhaust (Area 2), the buffing station exhaust (Area 3), shot blast machine exhaust (Area 4), pre-finishing, core removal station, coarse grinding operations exhaust (Area 5). 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.1.10 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the electric induction furnaces (ID No. Area 1), the mold sand handling (ID No. Area 2), the shakeout operations (ID No. Area 2), the pre-finishing station (ID No. Area 5), the core removal station (ID No. Area 5), the shot blast machines (ID No. Area 4), the coarse grinding station (ID No. Area 5), buffing station (ID No. Area 3), and final inspection buffing station operations (ID No. Final Inspection Collector) when venting to the atmosphere. 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 contains the Permittee's obligations with regard to the record keeping required by this condition.

D.1.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.1(b) and D.1.2(a) and(c) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) One (1) Finishing Operation consisting of the following emission units:

(1) Filler/putty application process, identified as P1-Filler/Putty Application, constructed in 1998, with a rated capacity of 1.75 gallons per hour of filler/putty, exhausting inside the building, then to general ventilation.

(2) One (1) paint booth, identified as P1-Paint Booth #2, constructed in 1998, with a rated capacity of 6.88 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.

(3) One (1) paint booth, identified as P1-Paint Booth #3, constructed in 1998, with a rated capacity of 1.43 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.

(4) One (1) putty station used for additional repair, identified as P1-Putty Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, exhausting inside the building, then to general ventilation.

(5) One (1) final inspection paint booth, identified as P1-Final Inspection Paint Booth, constructed in 1998, with a rated capacity of 0.50 gallons of primer per hour, using dry filters for overspray control, and exhausting to Paint Filter–Final Inspection.

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

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

D.2.1 Reserved

D.2.2 PSD Minor Limits [326 IAC 2-2]

(a) The total PM and PM10 emissions from paint booths #2 and #3 (P1-Paint Booth #2, P1-Paint Booth #3) shall be limited to 2.81 pounds per hour.

(b) The PM and PM10 emissions from the final inspection paint booth (P1-Final Inspection Paint Booth) shall be limited to 0.11 pounds per hour.

(c) The PM and PM10 emissions from the putty station (P1-Putty Booth) shall be limited to 0.0045 pounds per ton of metal.

(d) The amount of VOC used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of VOC used in the P1-Molding Machine and P1-Core Machine (listed in Section D.1) shall be limited to less than 89.33 tons per twelve (12) consecutive month period.

Compliance with the above limits, Combined with the emission limits in Section D.1, will ensure that the VOC, PM and PM10 emissions from the emissions units are limited to less than 100 tons per year and render the requirements of 326 IAC 2-2 are not applicable to the 1998 modification.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied in the paint booths (P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth) shall be limited to 3.50 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator for any calendar day, for forced warm air (less than 90°C or 194°F) dried coatings.

D.2.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f),work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.2.5 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), the allowable PM emission rate from the filler/putty application station (P1-Filler/Putty Application) and the putty station (P1-Putty Booth) shall not exceed 30.51 pounds per hour each when operating at a process weight rate of 20 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 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

D.2.6 Particulate Emission Limitations for Work Practices and Control Technologies [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

Note: Please see HAPs compliance determination requirements listed in D.1.8.

D.2.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Conditions D.2.2(d) and D.2.3 shall be determined using one of the following methods:

(a) Pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) Pursuant to 326 IAC 8-1-2(a)(7), using volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\Sigma C \times U) / \Sigma U]$$

Where:
A is the volume weighted average in pounds VOC per gallon less water as applied
C is the VOC content of the coating in pounds VOC per gallon less water as applied and
U is the usage rate of the coating in gallons day

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

D.2.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation, unless adverse weather conditions occur and continue throughout the entire week. Adverse weather conditions are defined as the presence of ice or deep snow on rooftops that prevent the weekly observations or monthly rooftop inspections due to the safety hazard it represents to employees. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition**.** Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during adverse weather conditions. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.10 Record Keeping Requirements

(a) Reserved

(b) To document the compliance status with Conditions D.2.2(d) and D.2.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Conditions D.2.2 and D.2.3.

(1) The amount VOC and solids content of each coating material and solvent used less water on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(c) To document the compliance status with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, and the daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur. The Permittee shall include in its daily record when an inspection is not performed and the reason for the lack of an inspection (e.g. the process did not operate that day).

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

D.2.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.2(d) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(h) One (1) Core Making Operation, consisting of the following emissions units:

(1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, constructed in 2004, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(2) One (1) Beta set core machine, identified as P2-Core Machine, constructed in 2004, with a rated capacity of 750 pounds of cores per hour, using 2.93 gallons of resin per hour, 1.25 gallons of release agent #1 per hour, and 0.50 gallons of release agent #2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, constructed in 2004, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(i) One (1) Mold Making Operation, consisting of the following emissions units:

(1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.

(2) One (1) molding machine, identified as P2-Molding Machine, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) mold wash, identified as P2-Mold Wash, constructed in 2004, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, constructed in 2004, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(j) One (1) Melting Operation, consisting of the following emissions units:

(1) One (1) charge handling system utilizing mechanical conveyors and magnetic overhead cranes, identified as P2-Charge, constructed in 2004, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by

Baghouse 1 and exhausting to stack P2B1.

(2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, constructed in 2004, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.

(3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, constructed in 2004, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.

(k) One (1) Floor Molding Operation, consisting of the following emissions units:

(1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, constructed in 2004, with a maximum rate of 18 tons of metal per hour, utilizing a vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.

(2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, constructed in 2004, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.

(l) One (1) Pre-Finishing Operation, consisting of the following emissions units:

(1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, constructed in 2004, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, constructed in 2004, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.

(3) One (1) core removal operation, identified as P2-Core Removal Operation, constructed in 2004, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, constructed in 2004, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(m) One (1) Finishing Operation, consisting of the following emissions units:

(4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.

(5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

(n) One (1) Furan Mold Making Operation, consisting of the following emissions units:

(1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of 28 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 2,000 pounds of sand per minute, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(o) One (1) Casting Line, consisting of the following emissions units:

(1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 8 tons of metal per hour, exhausting inside the building, then to general ventilation.

(2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of 8 tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(p) One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.

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

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

D.3.1 PSD Minor Limits [326 IAC 2-2]

(a) For the P2 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P2-EIF#1, P2-EIF#2, P2-EIF #3	88,000 total	0.4	0.52
P2-Shakeout, P2-Mold Sand Handling	88,000 each	0.32	0.32
P2-Shot Blast Machine	88,000	0.03	0.03
P2-Pre-Finish, P2-Putty Booth, P2-Grinding #1 - #5	88,000 each	0.08	0.08
P2-Core Removal	88,000	0.065	0.01
P2-Charge	88,000	0.36	0.36
P2-Pouring/Cooling	88,000	0.1	0.1
P2-Core Sand Handling	88,000	0.075	0.011
P2-Buffing Booth	88,000	0.08	0.08

Compliance with the limits above will limit the PM and PM10 emissions to less than 100 tons per year and render 326 IAC 2-2 not applicable to the 2003 modification.

(b) The emission units, identified as P2, constructed in 2003 have uncontrolled VOC emissions greater than 100 tons per year.

For the P2 emission units listed below, the VOC limits are as follows:

(1) The amount of VOC used in the P2-Molding Machine and P2-Core Machine combined with the amount of VOC used in the P2-Filler/Putty Application, P2-Paint Booth #1, P2-Paint Booth #2, shall be limited to less than 89.92 tons per twelve (12) consecutive month period.

(2) The P2-Shakeout and P2-Pouring/Cooling operations shall be limited to 88,000 tons of metal throughput per twelve (12) consecutive month period.

(3) The P2-Shakeout and P2-Pouring/Cooling operations shall be limited to less than a total of 0.18 pounds of VOC per ton of metal throughput.

Compliance with the limits above will limit VOC emissions of the emission units, identified as P2 to less than 100 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2003 modification.

(c) The CO emissions from emission units, identified as P2-shakeout and P2-Pouring/Cooling, constructed in 2003 have uncontrolled emissions greater than 100 tons

per year. The metal throughput to the P2-Shakeout and P2-Pouring/Cooling operations shall be limited to 88,000 tons of metal throughput per twelve (12) consecutive month period and the CO emissions shall be less than 1.87 pounds per ton of metal throughput.

Compliance with the limits above will limit CO emissions of the emission units, identified as P2-shakeout and P2-Pouring/Cooling to less than 100 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2003 modification.

(d) The P2exp-Pouring/Cooling, P2exp-Mold Sand Reclamation, P2exp-Mold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station, constructed in 2008 have uncontrolled PM and PM_{10} emissions greater than 25 and 15 tons per year, respectively.

Pursuant to Significant Permit Modification No. 079-25513-00018, issued on May 21, 2008 and modified in this Significant Source Modification 079-32218-00018 and Significant Permit Modification 079-32661-00018, the throughput of metal to each of the following facilities shall be as follows:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
P2exp-Pouring/Cooling	none	10,200 tons of metal per twelve consecutive month period	2.1 lbs/ton metal	1.6 lbs/ton metal	none
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	35,700 tons of sand per twelve consecutive month period	0.27 lbs/ton sand	0.07 lbs/ton sand	none
P2exp-Core Mixer	none	450 tons core sand per twelve consecutive month period	3.6 lb/ton	0.54 lb/ton	1.17 lb/ton

Compliance with the limits above, in conjunction with the actual to projected actual analysis for existing affected P2 emissions unit, will limit the PM, PM10 and VOC emissions to less than 25, 15 and 40 tons per year, respectively and render 326 IAC 2-2 (PSD) not applicable to the 2008 modification.

D.3.2 Reserved

D.3.3 Volatile Organic Compound Usage Limitations [326 IAC 8-1-6]

The amount of VOC used in the P2-Core Machine, including resin, release agent #1, and release agent #2, shall be limited to less than 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit will limit the VOC emissions from the P2-Core Machine to less than 25 tons per year and render the requirements of 326 IAC 8-1-6 (BACT) not applicable to the P2-Core Machine.

D.3.4 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from these emission units shall not exceed the pound per hour limitation shown in the table below:

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Electric Induction Furnaces (each) (P2-EIF#1, P2-EIF#2, P2-EIF #3)	6	13.6
P2-Charge	18	28.4
P2-Pouring/Cooling	18	28.4
P2-Core Removal	24	34.5
P2-Shot blast Machine	24	34.5
P2-Pre-Finish	24	34.5
P2-Grinding Stations #1-#5	24	34.5
P2-Buffing Booth	24	34.5
P2-Putty Booth	24	34.5
P2-Shakeout	24	34.5
P2-Core Sand Handling	0.375	2.13
P2-Mold Sand Handling	165	56.4
P2exp-Pouring/Cooling	36 *	41.6
P2exp-Mold Mixer	60	46.3
P2exp-Mold Sand -Reclamation	28	38.2
P2exp-Mold Dump	36 *	41.6
P2exp-Core Mixer	3	8.56

* This process weight includes both metal (8 tons) and sand (28 tons).

The particulate emission rates were calculated as described below.

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

$E = 4.10P^{0.67}$ where: E = rate of emissions in pounds per hour, and
P = process weight rate in tons per hour.

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

$E = 55.0P^{0.11} - 40$ where: E = rate of emissions in pounds per hour, and
P = process weight rate in tons per hour.

D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

Note: Please see HAPs compliance determination requirements listed in D.1.8.

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

(a) To comply with Conditions D.3.1 and D.3.4, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), and the P2exp-Mold Dump (Baghouse B6) at all times that these facilities are in operation.

(b) The integral vacuum system shall be in operation at all times when the floor pouring/cooling is in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

(a) In order to determine compliance with Conditions D.3.1(a) and D.3.4, the Permittee shall perform PM and PM_{10} testing by May 31, 2013 on three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, P2-EIF #3 and the control device (Baghouse 1) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(b) Within 180 days after issuance of Permit T079-29942-00018, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM and PM10 testing on baghouse controlling the P2-Shakeout and Sand Mold handling, utilizing methods as approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) Within 180 days after issuance of Permit T079-29942-00018, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM and PM10 testing on either baghouse controlling P2-shot blast machine or P2-Grinding station #1-#5, utilizing methods as approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(d) Within 180 days after issuance of this Significant Permit Modification 079-32661-00018, in order to demonstrate compliance with Condition D.3.1(d), the Permittee shall perform PM and PM10 testing on baghouse B6 controlling P2exp-Mold Sand Reclamation and P2exp-Mold Dump, utilizing methods as approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(e) Within 180 days after issuance of this Significant Permit Modification 079-32661-00018, in order to demonstrate compliance with Condition D.3.1(d), the Permittee shall perform PM and PM10 testing on P2exp-Pouring/Cooling, utilizing methods as approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

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

D.3.8 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6) and P2exp-Mold Dump (Baghouse B6) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces (Baghouse 1), the mold sand handling operation (Baghouse 2), the shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station (Baghouse 4), the coarse grinding stations (Baghouse 4),, the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), the P2exp-Mold Dump (Baghouse B6) at least once per day, when these facilities are in operation when venting to the atmosphere. 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 1.0 and 8.0 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 obligations with regard to responding 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.

D.3.10 Broken or Failed Bag Detection [40 CFR 64]

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

D.3.11 Record Keeping Requirements

(a) To document the compliance status with Conditions D.3.1 and D.3.3, the Permittee shall:

(1) Maintain records of the throughput of metal to the P2 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P2 emission units.

(2) Maintain records of the amount and VOC content of each core resin, release agent, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 and P2exp emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total VOC usage for each month and the weight of VOCs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.3.1.

(b) To document the compliance status with Condition D.3.2, the Permittee shall:

(1) Maintain records of the throughput of metal to the P2 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P2 emission units.

(c) To document the compliance status with Condition D.3.8, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), the buffing booth exhaust (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), P2exp-Mold Dump (Baghouse B6). 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).

(d) To document the compliance status with Condition D.3.9 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the electric induction furnaces (Baghouse 1), the mold sand handling operation (Baghouse 2), the shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station (Baghouse 4), the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), the P2exp-Mold Dump (Baghouse B6) when venting to the atmosphere. 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).

(e) To document the compliance status with Condition D.3.1(d), the Permittee shall maintain a monthly record of the metal throughput at emission unit P2exp-Pouring/Cooling.

(f) To document the compliance status with Condition D.3.1(d), the Permittee shall maintain a monthly record of the sand usage at emission unit P2exp-Mold Sand Reclamation and P2exp-Core Mixer.

(g) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.3.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.3.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(m) One (1) Finishing Operation, consisting of the following emissions units:

(1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, constructed in 2004, with a maximum rate 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.

(2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, constructed in 2004, each utilizes an HVLP spray gun, using dry filters for particulate control, exhausting inside the building, then to general ventilation..

(A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.

(B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.

(3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, constructed in 2004, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.

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

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

D.4.1 Reserved

D.4.2 PSD Minor Limits [326 IAC 2-2]

(a) The PM and PM10 emissions from paint booth #1 (P2-Paint Booth #1) shall be limited to 1.9 pounds per hour.

(b) The PM and PM10 emissions from paint booth #2 (P2-Paint Booth #2) shall be limited to 0.5 pounds per hour.

(c) The amount of VOC used in the P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2 (listed in this Section), combined with the amount of VOC used in the P2-Molding Machine and P2-Core Machine (listed in Section D.3) shall be limited to less than 89.92 tons per twelve (12) consecutive month period.

Compliance with these limits, combined with the emission limits in Section D.3, will ensure that the VOC, PM and PM10 emissions from the emissions units constructed under SSM 079-17819-00018 are limited to less than 100 tons per year and render the requirements of 326 IAC 2-2 (PSD) not applicable to the emissions units constructed under SSM 079-17819-00018.

D.4.3 Volatile Organic Compound (VOC) Limitation [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied in the paint booths (P2-Paint Booth #1, P2-Paint Booth #2) shall be limited to 3.50 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator for any calendar day, for forced warm air (less than 90°C or 194°F) dried coatings.

D.4.4 Volatile Organic Compound (VOC) Limitation, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f),work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.4.5 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), the allowable PM emission rate from the filler/putty application station (P2-Filler/Putty Application) shall not exceed 30.51 pounds per hour when operating at a process weight rate of 40,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 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

D.4.6 Particulate Emission Limitations for Work Practices and Control Technologies [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P2-Paint Booth #1 and P2-Paint Booth #2) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.4.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

Note: Please see HAPs compliance determination requirements listed in D.1.8.

D.4.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Conditions D.4.2(c) and D.4.3 shall be determined using one of the following methods:

(a) Pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) Pursuant to 326 IAC 8-1-2(a)(7), using volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\Sigma C \times U) / \Sigma U]$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied
C is the VOC content of the coating in pounds VOC per gallon less water as applied and
U is the usage rate of the coating in gallons day

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

D.4.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation, except during adverse weather conditions. Adverse weather conditions are defined as the presence of ice or deep snow on rooftops that prevent the weekly observations or monthly rooftop inspections due to the safety hazard it represents to employees. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during adverse weather conditions. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. 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.

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

D.4.10 Record Keeping Requirements

(a) The Permittee shall maintain records required under 326 IAC 3-5-6 at the source in a manner that they may be inspected by the IDEM, OAQ, or the US EPA, if so requested or required.

(b) Reserved

(c) To document the compliance status with Conditions D.4.2 and D.4.3 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.2 and D.4.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The total VOC usage for each month.

(3) The weight of VOCs emitted for each compliance period.

(d) To document the compliance status with Condition D.4.9, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur. The Permittee shall include in its daily record when an inspection is not performed and the reason for the lack of an inspection (e.g. the process did not operate that day).

(e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.4.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.4.2(c) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Degreasing operations that do not exceed 145 gallons per 12 months, including:

(1) One (1) parts washing station, identified as P1-Maintenance Parts Washing Station, using a maximum of 0.002 gallons of washing solution per hour. [326 IAC 8-3-2]

(2) One (1) Maintenance Department parts washing station, identified as P2-Maintenance Parts Washing Station, rated at 0.002 gallons of parts wash solution per hour. [326 IAC 8-3-2]

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

(c) 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. [326 IAC 6-3]

(d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

(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 2-7-5(1)]

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

(a) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers constructed after January 1, 1980, the Permittee shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

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

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.5.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the grinding and machining operations and the brazing, cutting, soldering or welding processes shall not exceed the pounds per hour limit as calculated in the following formula:

The pounds per hour limitation shall be calculated using the following equation:

Interpolation of the data for the process weight rate up to 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;
P = process weight rate in tons per hour.

Compliance Determination Requirement

D.5.4 Particulate Control

In order to comply with D.5.3, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

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

D.5.5 Record Keeping Requirements

(a) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:

(1) The name and address of the solvent supplier.
(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).
(3) The type of solvent purchased.
(4) The total volume of the solvent purchased.
(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) Diesel generators not exceeding 1600 horsepower, including:

(1) One (1) emergency generator, identified as P1-Emergency Generator, using a maximum 8.8 gallons of diesel fuel #2 per hour.

(2) Two (2) emergency generators, identified as P2-Emergency Generator #1 and P2-Emergency Generator #2, each is rated at 5.6 gallons of No. 2 diesel fuel per hour (125 kilowatts).

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

National Emissions Standard for Hazardous Air Pollutants [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emissions Standard for Hazardous Air Pollutants for stationary reciprocating Internal Combustion Engines [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.6590, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected source, as specified in Appendix A of 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR 63 Subpart ZZZZ.

E.1.2 National Emissions Standard for Hazardous Air Pollutants for stationary reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ]

Pursuant to CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63.6590, for the affected source, as specified as follows:

(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 (i)
(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 4)
(18) Table 6 (item 9)
(19) Table 8

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Entire Source

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

National Emissions Standard for Hazardous Air Pollutants [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to National Emissions Standard for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.10880, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected source, as specified in Appendix A of 40 CFR Part 63, Subpart ZZZZZ, in accordance with the schedule in 40 CFR 63 Subpart ZZZZZ.

E.2.2 National Emissions Standard for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ]

Pursuant to CFR Part 63, Subpart ZZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63.10880, for the affected source, as specified as follows:

(1) 40 CFR 63.10880
(2) 40 CFR 63.10881
(3) 40 CFR 63.10885
(4) 40 CFR 63.10886
(5) 40 CFR 63.10890
(6) 40 CFR 63.10895
(7) 40 CFR 63.10897
(8) 40 CFR 63.10898
(9) 40 CFR 63.10899
(10) 40 CFR 63.10900
(11) 40 CFR 63.10905
(12) 40 CFR 63.10906
(13) Table 1 to subpart ZZZZZ of Part 63
(14) Table 2 to subpart ZZZZZ of Part 63
(16) Table 3 to subpart ZZZZZ of Part 63
(18) Table 4 to subpart ZZZZZ of Part 63

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865
PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018

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

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

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

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

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

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

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

P1 VOC Usage Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.:	T079-29942-00018
Facilities:	P1-Molding Machine, P1-Core Machine, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth
Parameter:	VOC Usage
Limit:	The total usage of VOC shall be limited to less than 89.33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	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

P2 VOC Usage Part 70 Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.:	T079-29942-00018
Facilities:	P2-Molding Machine, P2-Core Machine, P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2
Parameter:	VOC Usage
Limit:	The total usage of VOC shall be limited to less than 89.92 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	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

P1 Metal Limitation Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.:	T079-29942-00018
Facilities:	P1-Charge, P1-EIF #1, P1-EIF#2, P1-Pouring/Cooling, P1-Shakeout, P1-Mold Sand Handling, P1-Pre-Finish, P1-Core Removal, P1-Core Sand Handling, P1-Grinding Station #1 through P1 Grinding Station #5, P1-Shotblast Machine #1, P1-Putty Booth, P1-Buffing Booth, P1-Final Inspection Buffing.
Parameter:	Metal throughput
Limit:	The throughput of metal shall be limited to 74,400 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1 + Column 2 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

P2 Metal Limitation Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.:	T079-29942-00018
Facilities:	P2-Charge, P2-EIF #1 through P2-EIF#3, P2-Pouring/Cooling, P2-Shakeout, P2-Mold Sand Handling, P2-Pre-Finish, P2-Core Removal, P2-Core Sand Handling, P2-Pre-Finish, P2-Putty Booth, P2-Grinding Station #1 through P2 Grinding Station #5, P2-Shotblast Machine, P2-Buffing Booth
Parameter:	Metal throughput
Limit:	The throughput of metal shall be limited to 88,000 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1 + Column 2 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

P2 BACT Limit Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2-Core Machine, including resin, release agent 1, and release agent 2
Parameter: VOC Usage
Limit: The amount of VOC used in the P2-Core Machine, including resin, release agent 1, and release agent 2, shall be limited to less than 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	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

HAP Usage Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.:	T079-29942-00018
Facility:	P1 - Core Making, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth, P2-Core Making, P2exp-Mold Mixer, P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2
Parameter:	HAP Usage
Limit:	Less than ten (10) tons for a single HAP and less than 19.6 tons for a combination of HAPs per twelve (12) month consecutive period.

QUARTER : YEAR:

Month	Column 1		Column 2		Column 1 + Column 2	
	This Month		Previous 11 Months		12 Month Total	
	Single HAP (tons)	Total HAPs (tons)	Single HAP (tons)	Total HAPs (tons)	Single HAP (tons)	Total HAPs (tons)
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

P2exp Metal Limitation Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Pouring/Cooling
Parameter: Metal throughput
Limit: The total throughput of metal shall be limited to less than 10,200 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	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

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Mold Sand Reclamation and P2exp-Mold Dump
Parameter: Sand usage
Limit: The total usage of sand in the P2exp-Mold Sand Reclamation and P2exp-Mold Dump shall be limited to less than 35,700 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1 + Column 2 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

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Core Mixer
Parameter: Sand usage
Limit: The total usage of sand in the P2exp-Core Mixer shall be limited to less than 450 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : YEAR:

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1 + Column 2 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
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. 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

PART 63 National Emission Standards for Hazardous Air Pollutants

40 CFR 63, Subpart ZZZZ—National Emission 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_2concentration is measured in lieu of oxygen concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction 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_2volume 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_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction 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_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and SO_2gas concentrations adjusted to 15 percent O_2using CO_2as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:

$\%CO_2$= Measured CO_2concentration 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_2at 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_2concentration.

(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 you must . . .

.	during periods of startup . . .	
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 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.	Comply with any operating limitations approved by the Administrator.

[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 RICE >500 HP	a. Limit concentration of CO in the stationary RICE 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-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	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, 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	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years,

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		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_2 at the inlet and outlet of the control device; and	(1) Portable CO and O_2 analyzer	(a) Using ASTM D6522–00 (2005)[a] (incorporated by reference, see §63.14). Measurements to determine O_2 must 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_2 analyzer	(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 points; and	(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.
		ii. Measure O_2 at 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_2 concentration 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	(1) Method 3 or 3A or 3B of 40	(a) Measurements to determine

		O_2concentration of the stationary RICE exhaust at the sampling port location; and	CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	O_2concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; 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 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-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 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; 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	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

than 24 hours per calendar year		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-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 not using oxidation catalyst	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 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 of HAP	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
		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 RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating 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	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's

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		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 oxidation catalyst or	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

	NSCR	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	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	

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		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 and maintenance requirements	Yes.	
§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 B

Part 63 - National Emission Standards for Hazardous Air Pollutants

40 CFR 63, Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Source

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:

$$E_{p1_{released}} = E_{p1_i} \times \left(1 - \frac{\%\ \text{reduction}}{100}\right) \qquad (\text{Eq. } 4)$$

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)."

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	North Vernon Industry Corporation
Source Location:	3750 4th Street, North Vernon, IN 47265
County:	Jennings
SIC Code:	3442 (Metal Doors, Sash, Frames, Molding and Trim Manufacturing), 3321 (Gray and Ductile Iron Foundries)
Operation Permit Renewal No.:	T 079-29942-00018
Operation Permit Issuance Date:	April 4, 2011
Significant Source Modification No.:	079-32218-00018
Significant Permit Modification No.:	079-32661-00018
Permit Reviewer:	Heath Hartley

Public Notice Information

On April 9, 2013, the Office of Air Quality (OAQ) had a notice published in Plain Dealer and Sun in North Vernon, Indiana, stating that the North Vernon Industry Corporation had applied for a significant modification to their Part 70 Operating Permit Renewal issued on April 4, 2011 to make the following changes:

- Changing the limits for the P2exp pouring/cooling, P2exp mold dump and P2exp mold sand reclamation units.
- Removing P2exp pre-finishing operation (P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation and P2exp-Grinding Station).
- Changing HAP emission factors for the melting operations.
- Adding organic emission factors for furan P2exp-pouring/cooling and shakeout.
- Increasing the maximum throughput for both the P2exp Pouring/Cooling and P2exp Mold Dump from 6 ton/hr to 8 ton/hr and the P2exp-Mold Sand Reclamation from 10 ton/yr to 28 ton/yr.
- Increase sand throughput limit for P2exp-Core Mixer.

The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received

OAQ received comments from the following people (and groups of people):

- North Vernon Industry Corporation

The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

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

Company Comments and IDEM's Responses

On April 11, 2013, OAQ received comments from North Vernon Industry Corporation. The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Company Comment 1:

The pouring/cooling emission factors for PM/PM10 do not appear to have been changed in Section 3.1 of the permit.

IDEM Response 1:

Condition D.3.1(d) of the permit has been corrected to show the correct version of emission limit for both the Significant Source Modification 079-32218-00018 and Significant Permit Modification 079-32661-00018. Both the TSD and Appendix A are correct, therefore no change was made to them due to this comment.

D.3.1 PSD Minor Limits [326 IAC 2-2]

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(d) The P2exp-Pouring/Cooling, P2exp-Mold Sand Reclamation, P2exp-Mold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station, constructed in 2008 have uncontrolled PM and PM_{10} emissions greater than 25 and 15 tons per year, respectively.

Pursuant to Significant Permit Modification No. 079-25513-00018, issued on May 21, 2008 and modified in this Significant Source Modification 079-32218-00018 and Significant Permit Modification 079-32661-00018, the throughput of metal to each of the following facilities shall be as follows:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
P2exp-Pouring/Cooling	none	10,200 tons of metal per twelve consecutive month period	~~3.3~~**2.1** lbs/ton metal	~~2.06~~**1.6** lbs/ton metal	none
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	35,700 tons of sand per twelve consecutive month period	0.27 lbs/ton sand	0.07 lbs/ton sand	none
P2exp-Core Mixer	none	450 tons core sand per twelve consecutive month period	3.6 lb/ton	0.54 lb/ton	1.17 lb/ton

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IDEM Contact

Questions regarding this proposed permit can be directed to Heath Hartley at the Indiana Department Environmental Management, Office of Air Quality, MC 61-53, Room 1003, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8217 or toll free at 1-800-451-6027 extension 2-8217.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	North Vernon Industry Corporation
Source Location:	3750 4th Street, North Vernon, IN 47265
County:	Jennings
SIC Code:	3442 (Metal Doors, Sash, Frames, Molding and Trim Manufacturing), 3321 (Gray and Ductile Iron Foundries)
Operation Permit No.:	T 079-29942-00018
Operation Permit Issuance Date:	April 4, 2011
Significant Source Modification No.:	079-32218-00018
Significant Permit Modification No.:	079-32661-00018
Permit Reviewer:	Heath Hartley

Note: While on public notice, the draft permit was re-evaluated. Because of this evaluation, the emission limits for PSD non-applicability were revised. Therefore, another public notice is required.

Existing Approvals

The source was issued Part 70 Operating Permit No. T 079-29942-00018 on April 4, 2011. The source has since received the following approvals:

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Jennings 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.
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005
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.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Jennings County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Jennings 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
Jennings County has been classified as attainment or unclassifiable in Indiana for SO_2, CO, PM_{10}, NO_2 and Pb. 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 an iron foundry, 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.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	220.3
PM_{10}	211.8
SO_2	3.5
VOC	206.2
CO	227.7
NO_X	34.7
Single HAP	<10
Total HAPs	<25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are limited to 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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

(c) These emissions are based upon Part 70 Operating Permit Renewal No. T079-29942-00018, issued on April 4, 2011.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by North Vernon Industry Corp. on August 17, 2012, relating to the following changes:

(1) Changing the annual production usage, PM and PM10 limits for the P2exp pouring/cooling, P2exp mold dump and P2exp mold sand reclamation units and still maintaining the emissions less than

the major significant thresholds of 25 tons/year for PM and 15 tons/year for PM10 for what is considered the 2008 modification (see table below for summary).

Also added VOC emission factor for P2exp-Core Mixer.

P2exp-Pouring/Cooling			
	Annual Production/Usage Limit (tons/yr)	PM Limit (lb/ton)	PM10 Limit (lb/ton)
Existing Limits	4,927	5.6	3.46
New Limits	10,200	2.1	1.6

Existing PM = 13.8 tons/yr
Existing PM10 = 8.52 tons/yr

New PM = 10.71 tons/yr
New PM10 = 8.16 tons/yr

P2exp-Mold Sand Reclamation and P2exp-Mold Dump			
	Annual Production/Usage Limit (tons/yr)	PM Limit (lb/ton)	PM10 Limit (lb/ton)
Existing Limits	14,780	0.87	0.57
New Limits	35,700	0.27	0.07

Existing PM = 6.43 tons/yr
Existing PM10 = 4.21 tons/yr

New PM = 4.82 tons/yr
New PM10 = 1.25 tons/yr

P2exp-Core Mixer				
	Annual Production/Usage Limit	PM Limit (lb/ton)	PM10 Limit (lb/ton)	VOC Limit (lb/ton)
Existing Limits	66,000 lbs/yr	3.6	0.54	1.17
New Limits	450 tons/yr	3.6	0.54	1.17

Existing PM = 0.06 tons/yr
Existing PM10 = 0.01 tons/yr
Existing VOC = 0 tons/yr

New PM = 0.81 tons/yr
New PM10 = 0.12 tons/yr
New VOC = 0.26 tons/yr

(2) Removing P2exp pre-finishing operation (P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation and P2exp-Grinding Station).

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
~~P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station~~	~~Baghouse B7 (P2exp-B7)~~	~~4,927 tons of metal per twelve consecutive month period~~	~~0.34 lbs/ton metal~~	~~0.03 lbs/ton metal~~	~~none~~

(3) Changing the following HAP emission factors for the melting operations:

P1 & P2 Electric Induction Furnaces	Existing	New
Lead	0.385%	0.00558 lb/ton
Manganese	3.1%	0.014 lb/ton
Nickel	NA	0.00897 lb/ton

(4) Adding organic emission factors for P2exp-pouring/cooling and shakeout.

- Benzene 0.818 lb/ton and Toluene 0.106 lb/ton and Total HAPs 1.08 lb/ton.

(5) Increasing the metal maximum rate for the P2exp Pouring/Cooling from 6 ton/hr to 8 ton/hr, with no physical modification being made.

One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, exhausting inside the building, then to general ventilation.

(6) Increasing the metal maximum rate for the P2exp Mold Dump from 6 ton/hr to 8 ton/hr with no physical modification being made. The increase is due to large molds being handled more efficiently due to the following changes:

- Relocation of a turntable from the existing shakeout to the pouring areas.
- Addition of rollers under the furan mixer to move from the shakeout to the mixer and out of the mixer.
- Addition of overhead cranes to move the molds within the area.
- Expansion of the cooling building to make room for additional furan molds.

One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(7) Increasing the maximum capacity for the P2exp-Mold Sand Reclamation from 10 ton/hour to 28 ton/hour with no physical modification being made.

One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of ~~10~~**28** tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(8) Increasing the sand throughput limit for P2exp-Core Mixer from 66,000 lb per year to 450 tons per year.

There are no new emission units involved in this modification.

Note: Due to the above mentioned changes, the ATPA analysis made in 2008 for the P2exp modification is also being evaluated in this modification.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

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

PTE Change of the Modified Process (P2exp-Pouring/Cooling)			
Pollutant	PTE Before Modification (ton/yr)	PTE After Modification (ton/yr)	Increase from Modification* (ton/yr)
PM	110.4	147.2	36.8
PM_{10}	54.1	72.2	18.1
SO_2	0.5	0.7	0.2
VOC	6.0	79.5	73.5
CO	157.7	210.2	52.6
NO_X	0.3	0.4	0.1

PTE Change of the Modified Process (P2exp-Mold Dump)			
Pollutant	PTE Before Modification (ton/yr)	PTE After Modification (ton/yr)	Increase from Modification* (ton/yr)
PM	84.1	112.1	28.0
PM_{10}	58.9	78.5	19.6

PTE Change of the Modified Process (P2exp-Mold Sand Reclamation)			
Pollutant	PTE Before Modification (ton/yr)	PTE After Modification (ton/yr)	Increase from Modification* (ton/yr)
PM	157.7	441.5	283.8
PM_{10}	23.6	66.2	42.6

PTE Change of the Modified Process (P2exp-Core Mixer)			
Pollutant	PTE Before Modification (ton/yr)	PTE After Modification (ton/yr)	Increase from Modification* (ton/yr)
VOC	0	307.5	307.5

PTE Change of the Modified Process (Total)	
Pollutant	**Increase from Modification*** (ton/yr)
PM	348.6
PM_{10}	80.3
SO_2	0.2
VOC	381.0
CO	52.6
NO_X	0.1

*This increase from the modification is prior to the application of controls and limits.

(a) Significant Source Modification

This source modification is subject to 326 IAC 2-7-10.5(g)(4) because the potential to emit of PM, PM10 and VOC is greater than twenty-five (25) tons per year.

(b) Significant Permit Modification

Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because this modification revises existing emission limits.

Permit Level Determination – PSD

The following changes have been made to the P2exp modification. These changes in conjunction with the updated ATPA analysis (see below) will continue to limit the PM and PM10 emissions to less than 25 and 15 tons per year, respectively and render 326 IAC 2-2 not applicable to the P2exp modification (in 2008).

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
P2exp-Pouring/Cooling	none	~~4,927~~ **10,200** tons of metal per twelve consecutive month period	~~5.60~~ **2.1** lbs/ton metal	~~3.46~~ **1.6** lbs/ton metal	none
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	~~14,780~~ **35,700** tons of sand per twelve consecutive month period	~~0.87~~ **0.27** lbs/ton sand	~~0.57~~ **0.07** lbs/ton sand	none
~~P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station~~	~~Baghouse B7 (P2exp-B7)~~	~~4,927 tons of metal per twelve consecutive month period~~	~~0.34 lbs/ton metal~~	~~0.03 lbs/ton metal~~	~~none~~
P2exp-Core Mixer	none	~~66,000 pounds~~ **450 tons** core sand per twelve consecutive month period	~~None~~ **3.6 lb/ton**	~~None~~ **0.54 lb/ton**	~~None~~ **1.17 lb/ton**

New PM = 10.71 tons/yr
New PM = 4.82 tons/yr
New PM = 0.81 tons/yr
Total PM = 16.34 tons/yr

New PM10 = 8.16 tons/yr
New PM10 = 1.25 tons/yr
New PM10 = 0.12 tons/yr
Total PM10 = 9.53 tons/yr

<u>Actual to Projected Actual (ATPA) Analysis (For the 2008 modification, revised in 2013)</u>

The Permittee has provided the following updated information as part of the application for the updated ATPA analysis. The P2exp 2008 modification is a modification at a major stationary source which will result in emissions increase from certain existing emission units at Plant 2 due to increased utilization of these units. The information for actual emissions from the existing emission units is for the period of August 2005 through July, 2007 (this baseline period was not changed in the 2013 ATAP analysis). This analysis reflects the change in emissions of the existing P2 line based on this modification to increase throughput for the P2exp units. IDEM, OAQ has not reviewed this information and will not be making any determination in thisregard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

Baseline Actual Emissions of Affected Existing Units at Plant 2* (with Control Devices)						
Emission Unit (ton/yr)	PM	PM10	SO2	NOx	VOC	CO
P2-Scrap and Charge Handling	11.86	7.12	0	0	0	0
P2-Ladle Preheater	0	0	0	0	0	0
P2-Electric Induction Furnace	5.93	5.93	0	0	0	0
P2-Prefinish Station, Putty Booth, Grinding	1.58	1.58	0	0	0	0
P2-Core Removal	1.28	0.20	0	0	0	0
P2-Shot Blast Machine	0.59	0.59	0	0	0	0
P2-Buffing Booth	0.59	1.38	0	0	0	0
P2-Paint Booths	1.60	1.60	0	0	12.48	0
Total Baseline Actual Emissions	**23.43**	**18.40**	**0**	**0**	**12.48**	**0**

Projected Actual Emissions of Affected Existing Units at Plant 2* (with Control Devices)						
Emission Unit (ton/yr)	PM	PM10	SO2	NOx	VOC	CO
P2-Scrap and Charge Handling	14.93	8.96	0	0	0	0
P2-Ladle Preheater	0	0	0	0	0	0
P2-Electric Induction Furnace	7.46	7.46	0	0	0	0
P2-Prefinish Station, Putty Booth, Grinding	1.98	1.98	0	0	0	0
P2-Core Removal	1.61	0.25	0	0	0	0
P2-Shot Blast Machine	0.74	0.74	0	0	0	0
P2-Buffing Booth	0.74	0.74	0	0	0	0
P2-Paint Booths	2.01	2.01	0	0	15.71	0
Total Projected Actual Emissions	**29.49**	**23.15**	**0**	**0**	**15.71**	**0**

* P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, P2exp-Grinding Station have been removed from the P2exp line. These processes have been included in the above table in the P2-Prefinish Station, P2-Putty Booth, P2-Grinding, P2-Core Removal and P2-Shot Blast Machine. P2-Core Sand Handling, P2-Core Machine and P2-Shell Core Machine Butane Torch are not used for P2exp Line, therefore these units are not included.

ATPA of Affected Existing Units at Plant 2* (with Control Devices)						
Emission Unit (ton/yr)	PM	PM10	SO2	NOx	VOC	CO
Projected Actual Emissions	29.49	23.15	0	0	15.71	0
Baseline Actual Emissions	23.43	18.40	0	0	12.48	0
ATPA Emissions Increase	**6.06**	**4.75**	**0**	**0**	**3.23**	**0**

P2exp 2008 Modification						
Process/ Emission Unit	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NOx**
P2exp-Pouring/Cooling	10.7	8.2	0.70	11.6	30.6	0.35
P2exp-Mold Mixer	0	0	0	9.73	0	0
P2exp-Mold Wash	0	0	0		0	0
P2exp-Mold Sand Reclamation	4.82	1.25	0	0	0	0
P2exp-Mold Dump			0	0	14.8	0
P2exp-Core Mixer	0.81	0.12	0	0.26	0	0
ATPA Emissions Increase	6.06	4.76	0	3.23	0	0
2008 Modification Total	**22.4**	**14.3**	**0.7**	**24.8**	**45.4**	**0.4**
PSD Significant Level	25	15	40	40	100	40

This P2exp 2008 modification (with changes made in 2013) to an existing major stationary source is not major because the Permittee has accepted limits on the emissions increase such that the increase in emissions from the new units and the increased utilization of existing emission units is limited to less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply to the P2exp 2008 modification.

PSD Major Status of the Source

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source/permit modification, 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 Source Prior to Modification (tons/year)						
	PM	PM10	SO_2	VOC	CO	NOx	Total HAPs
1998 Modification							
P1-EIF#1 and P1-EIF#2[c]	18.6	20.8	0	0	0	0	
P1-Charge	22.32	22.32	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	3.72	3.72	1.05	6.7	89.3	0.53	
P1-Shakeout	11.9	11.9	0			0	
P1-Mold Sand Handling[a]	11.9	11.9					
P1-Molding Machine, P1-Mold Wash, P1-Molding Dryer #1, P1-Molding Dryer #2	0	0	0	89.33	0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, & #3, P1-Paint Booth Dryers #2 & #3, P1-Final Inspection Paint Booth	12.8	12.8	0.00001		0.0012	0.0015	
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	2.79	0.41	0	0	0	0	
P1-Shot Blast Machine #1	1.12	1.12	0	0	0	0	
P1-Core Removal	3.35	3.35	0	0	0	0	
P1-Pre-Finish[b]	3.35	3.35	0	0	0	0	
P1-Grinding Stations #1-#5[b]	3.35	3.35	0	0	0	0	
P1-Buffing Booth	2.98	2.98	0	0	0	0	Single < 10 and Total < 25
P1-Final Inspection Buffing Booth	0.17	0.17	0	0	0	0	
P1- Various Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
Sub-Total	99.5	99.3	1.2	96.7	99.2	13.3	
2003 Modification							
P2-EIF#1, P2-EIF#2 and P2-EIF #3[f]	17.6	22.9	0	0	0	0	
P2-Charge	15.8	15.8	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	4.4	4.4	1.58	8.0	82.3	0	
P2-Shakeout	14.1	14.1	0			0	
P2-Mold Sand Handling[d]	14.1	14.1	0			0	
P2-Molding Machine, P2-Molding Dryer #1, P2-Molding Dryer #2, P2-Mold Wash	0	0	0	89.92	0	0	

Process/ Emission Unit	Potential To Emit of the Source Prior to Modification (tons/year)						
	PM	PM10	SO_2	VOC	CO	NOx	Total HAPs
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryers #1, #2	10.5	10.5	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	3.3	0.5	0	0	0	0	
P2-Shot Blast Machine	1.32	1.32	0	0	0	0	
P2-Pre-Finish	3.52	3.52	0	0	0	0	
P2-Grinding Stations #1 - #5[(e)]	3.52	3.52	0	0	0	0	
P2- Putty Booth[(e)]	3.52	3.52	0	0	0	0	
P2-Buffing Booth	3.52	3.52	0	0	0	0	
P2-Core Removal	2.86	0.44	0	0	0	0	
P2- Various Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
Sub-Total	99.7	99.7	1.8	99.1	98.9	21.1	
2008 Modification							
P2exp-Pouring/Cooling	13.8	8.5	0.53	0.34	14.78	0.26	
P2exp-Mold Mixer	0	0	0	9.73	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	6.43	4.21	0	0	0	0	
P2exp-Mold Dump			0	0.22	14.8	0	
P2exp-Pre-Finish Station	0.84	0.074	0	0	0	0	
P2exp-Blast Cabinet			0	0	0	0	
P2exp-Core Removal Operation			0	0	0	0	
P2exp-Grinding Station			0	0	0	0	
P2exp-Core Mixer	0.06	0.01	0	0.01	0	0	
ATPA Emissions Increase	2.46	2.06	0	3.19	0	0	
Sub-Total	23.6	14.9	0.5	13.5	29.6	0.3	
Total PTE for Entire Source	222.7	213.9	3.5	209.4	227.7	34.7	Single < 10 and Total < 25
PSD Major Source Levels	100	100	100	100	100	100	10/25

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".
(a) P1-Mold Sand Handling has been separated from P1-Shakeout and emissions are shown for each.
(b) P1-Pre-Finish and P1-Grinding Station #1 - #5 have been separated from P1-Core Removal and emissions are shown for each.
(c) P1-EIF 1 & P1-EIF 2 limits have been corrected in order to keep the 1998 modification < 100 ton/yr.
(d) P2-Mold Sand Handling has been separated from P2-Shakeout and emissions are shown for each.
(e) P2-Grinding Station #1 - #5 and P2-Putty Booth have been separated from P2-Pre-Finish and emissions are shown for each.
(f) P2-EIF#1, P2-EIF#2, P2-EIF#3 limits have been corrected in order to keep the 2003 modification < 100 ton/yr.

Process/ Emission Unit	Potential To Emit of the Source with Modification (tons/year)						
	PM	PM10*	SO_2	VOC	CO	NOx	Total HAPs
1998 Modification							
P1-EIF#1 and P1-EIF#2	18.6	20.8	0	0	0	0	
P1-Charge	22.32	22.32	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	3.72	3.72	1.05	6.7	89.3	0.53	
P1-Shakeout	11.9	11.9	0			0	
P1-Mold Sand Handling	11.9	11.9					
P1-Molding Machine	0	0	0	89.33	0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, & #3, P1-Paint Booth Dryers #2 & #3, P1-Final Inspection Paint Booth	12.8	12.8	0.00001		0.0012	0.0015	9.17
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	2.79	0.41	0	0	0	0	
P1-Shot Blast Machine #1	1.12	1.12	0	0	0	0	
P1-Core Removal	3.35	3.35	0	0	0	0	
P1-Pre-Finish	3.35	3.35	0	0	0	0	
P1-Grinding Stations #1-#5	3.35	3.35	0	0	0	0	
P1-Buffing Booth	2.98	2.98	0	0	0	0	
P1-Final Inspection Buffing Booth	0.17	0.17	0	0	0	0	
P1- Various Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
1998 Modification Sub-Total	99.5	99.3	1.2	96.7	99.2	13.3	9.17
2003 Modification							
P2-EIF#1, P2-EIF#2 and P2-EIF #3	17.6	22.9	0	0	0	0	
P2-Charge	15.8	15.8	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	4.4	4.4	1.58	8.0	82.3	0	
P2-Shakeout, P2-Mold Sand Handling	14.1	14.1	0			0	
P2-Molding Machine	0	0	0	89.92	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryers #1, #2,	10.5	10.5	0.000001		0.0012	0.0015	9.90
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	3.3	0.5	0	0	0	0	
P2-Shot Blast Machine	1.32	1.32	0	0	0	0	
P2-Pre-Finish	3.52	3.52	0	0	0	0	
P2-Grinding Stations #1 - #5	3.52	3.52	0	0	0	0	
P2- Putty Booth	3.52	3.52	0	0	0	0	
P2-Buffing Booth	3.52	3.52	0	0	0	0	
P2-Core Removal	2.86	0.44	0	0	0	0	
P2- Various Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
2003 Modification Sub-Total	99.7	99.7	1.8	99.1	98.9	21.1	9.90

Process/ Emission Unit	Potential To Emit of the Source with Modification (tons/year)						
	PM	PM10*	SO_2	VOC	CO	NOx	Total HAPs
2008 Modification							
P2exp-Pouring/Cooling**	~~13.8~~ **10.7**	~~8.5~~ **8.2**	~~0.53~~ **0.70**	~~8.55~~ **11.6**	~~14.78~~ **30.6**	~~0.26~~ **0.35**	5.52
P2exp-Mold Mixer	0	0	0	9.73	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation**	~~6.43~~ **4.82**	~~4.21~~ **1.25**	0	0	0	0	
P2exp-Mold Dump**			0	~~0.22~~**0**	14.8	0	
~~P2exp-Pre-Finish Station~~	~~0.84~~	~~0.074~~	~~0~~	~~0~~	~~0~~	~~0~~	
~~P2exp-Blast Cabinet~~			~~0~~	~~0~~	~~0~~	~~0~~	
~~P2exp-Core Removal Operation~~			~~0~~	~~0~~	~~0~~	~~0~~	
~~P2exp-Grinding Station~~			~~0~~	~~0~~	~~0~~	~~0~~	
P2exp-Core Mixer	~~0.06~~ **0.81**	~~0.01~~ **0.12**	0	~~0.01~~ **0.26**	0	0	
ATPA Emissions Increase	6.06	4.76	0	3.23	0	0	NA
2008 Modification Sub-Total	22.4	14.3	0.7	24.8	45.4	0.4	5.52
Total PTE for Entire Source	~~222.7~~ **221.5**	~~213.9~~ **213.3**	~~3.5~~ **3.7**	~~209.4~~ **220.7**	~~227.7~~ **243.5**	34.7	~~< 10 Single HAP < 25 Total HAPs~~ **24.6**
PSD Major Source Levels	100	100	100	100	100	100	10/25

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".
**Limited PM, PM10 and VOC emissions to render 326 IAC 2-2 PSD not applicable for the 2008 modification. VOC change due to emission factor change.

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

(Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

	Potential To Emit of the Source After Issuance of Modification (tons/year)						
Process/ Emission Unit	PM	PM10*	SO_2	VOC	CO	NOx	Total HAPs
1998 Modification							
P1-EIF#1 and P1-EIF#2	18.6	20.8	0	0	0	0	9.17
P1-Charge	22.32	22.32	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	3.72	3.72	1.05	6.7	89.3	0.53	
P1-Shakeout,	11.9	11.9	0			0	
P1-Mold Sand Handling	11.9	11.9					
P1-Molding Machine	0	0	0	89.33	0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths 2, & 3, P1-Paint Booth Dryers 2 & 3, P1-Final Inspection Paint Booth	12.8	12.8	0.00001		0.0012	0.0015	
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	2.79	0.41	0	0	0	0	
P1-Shot Blast Machine #1	1.12	1.12	0	0	0	0	
P1-Core Removal,	3.35	3.35	0	0	0	0	
P1-Pre-Finish	3.35	3.35	0	0	0	0	
P1-Grinding Stations #1-#5	3.35	3.35	0	0	0	0	
P1-Buffing Booth	2.98	2.98	0	0	0	0	
P1-Final Inspection Buffing Booth	0.17	0.17	0	0	0	0	
P1- Various Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
1998 Modification Sub-Total	**99.5**	**99.3**	**1.1**	**96.7**	**99.2**	**13.3**	**9.17**
2003 Modification							
P2-EIF#1, P2-EIF#2 and P2-EIF #3	17.6	22.9	0	0	0	0	9.85
P2-Charge	15.8	15.8	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	4.4	4.4	1.58	8.0	82.3	0	
P2-Shakeout	14.1	14.1	0			0	
P2-Mold Sand Handling	14.1	14.1	0				
P2-Molding Machine	0	0	0	89.92	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths 1, 2, P2-Paint Booth Dryers 1, 2,	10.5	10.5	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	3.3	0.5	0	0	0	0	
P2-Shot Blast Machine	1.32	1.32	0	0	0	0	
P2-Pre-Finish	3.52	3.52	0	0	0	0	
P2-Grinding Stations 1 - 5	3.52	3.52	0	0	0	0	
P2- Putty Booth	3.52	3.52	0	0	0	0	
P2-Buffing Booth	3.52	3.52	0	0	0	0	
P2-Core Removal	2.86	0.44	0	0	0	0	
P2- Various Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
2003 Modification Sub-Total	**99.7**	**99.7**	**1.8**	**99.1**	**98.9**	**21.1**	**9.85**
2008 Modification **							
P2exp-Pouring/Cooling	10.7	8.2	0.70	11.6	30.6	0.35	5.68
P2exp-Mold Mixer	0	0	0	9.73	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	4.82	1.25	0	0	0	0	
P2exp-Mold Dump			0	0	14.8	0	
P2exp-Core Mixer	0.81	0.12	0	0.26	0	0	
ATPA Emissions Increase	6.06	4.76	0	3.23	0	0	NA
2008 Modification Sub-Total	**22.4**	**14.3**	**0.7**	**24.8**	**45.4**	**0.4**	**5.68**
Total PTE for Entire Source	**221.5**	**213.3**	**3.7**	**220.7**	**243.5**	**34.7**	**24.8**
PSD Major Source Levels	100	100	100	100	100	100	10/25

Process/ Emission Unit	Potential To Emit of the Source After Issuance of Modification (tons/year)						
	PM	PM10*	SO_2	VOC	CO	NOx	Total HAPs

*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".
**Limited PM, PM10 and VOC emissions to render 326 IAC 2-2 PSD not applicable for the 2008 modification.

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

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

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

NESHAP:

(b) There are no additional National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

(c) There are no changes to Compliance Assurance Monitoring (CAM) as a result of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
See PSD and ATPA analysis above.

26 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The source has the potential to emit greater than ten (10) tons per year for a single HAP or greater than twenty-five (25) tons per year for a combination of HAPs for emission units constructed after July 27, 1997. However, the source has limited the source wide HAPs emissions to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM are still not applicable to this source

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from these emission units shall not exceed the pound per hour limitation shown in the table below:

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
P2exp-Pouring/Cooling	~~16~~**36** *	~~26.3~~**41.6**
P2exp-Mold Sand Reclamation	~~10~~**28**	~~19.2~~**38.2**
P2exp-Mold Dump	~~16~~**36** *	~~26.3~~**41.6**
~~P2exp-Pre-Finish Station~~	~~6~~	~~13.6~~
~~P2exp-Blast Cabinet~~	~~6~~	~~13.6~~
~~P2exp-Core Removal Operation~~	~~6~~	~~13.6~~
~~P2exp-Grinding Station~~	~~6~~	~~13.6~~

* This process weight includes both metal and sand.

Compliance Determination and Monitoring Requirements

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

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

The compliance determination requirements applicable to this modification are as follows:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
P2exp-Pouring/Cooling	none	Within 180 days of issuance of the Significant Permit Modification 079-32661-00018	PM	Once
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)		PM and PM_{10}	

P2exp-Pouring/Cooling and Baghouse B6 have not previously been tested.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T079-29942-00018. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1: The maximum capacity of the P2exp Pouring/Cooling operation and P2exp Mold Dump have increased from 6 tons/hr to 8 tons/hr and P2exp-Mold Sand Reclamation sand capacity changed from 10 tons/hr to 28 tons/hr.

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

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

.....

(n) One (1) Furan Mold Making Operation, consisting of the following emissions units:

(1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of ~~10~~**28** tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

.....

(o) One (1) Casting Line, consisting of the following emissions units:

(1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, exhausting inside the building, then to general ventilation.

(2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

.....

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

.....

(n) One (1) Furan Mold Making Operation, consisting of the following emissions units:

(1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of ~~10~~**28** tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

.....

(o) One (1) Casting Line, consisting of the following emissions units:

(1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, exhausting inside the building, then to general ventilation.

(2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of ~~6~~**8** tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

.....

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

Change 2: The emission limits have been revised for P2exp pouring/cooling, P2exp mold dump and P2exp mold sand reclamation units.

D.3.1 PSD Minor Limits [326 IAC 2-2]

.....

(d) The P2exp-Pouring/Cooling, P2exp-Mold Sand Reclamation, P2exp-Mold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station, constructed in 2008 have uncontrolled PM and PM_{10} emissions greater than 25 and 15 tons per year, respectively.

Pursuant to Significant Permit Modification No. 079-25513-00018, issued on May 21, 2008 **and modified in this Significant Source Modification 079-32218-00018 and Significant Permit Modification 079-32661-00018,** the throughput of metal to each of the following facilities shall be as follows:

Emission Unit	Control Device (Stack)	Annual Production/Usage	PM Limit	PM10 Limit	VOC Limit

		Limit			
P2exp-Pouring/Cooling	none	~~4,927~~**10,200** tons of metal per twelve consecutive month period	~~5.60~~ **2.1** lbs/ton metal	~~3.46~~ **1.6** lbs/ton metal	none
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	~~14,780~~ **35,700** tons of sand per twelve consecutive month period	~~0.87~~ **0.27** lbs/ton sand	~~0.57~~ **0.07** lbs/ton sand	none
~~P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station~~	~~Baghouse B7 (P2exp-B7)~~	~~4,927 tons of metal per twelve consecutive month period~~	~~0.34 lbs/ton metal~~	~~0.03 lbs/ton metal~~	~~none~~
P2exp-Core Mixer	none	~~66,000 pounds~~ **450 tons** core sand per twelve consecutive month period	~~none~~**3.6 lb/ton**	~~None~~ **0.54 lb/ton**	~~None~~ **1.17 lb/ton**

Compliance with the limits above, **in conjunction with the actual to projected actual analysis for existing affected P2 emissions unit,** will limit the PM, PM10 and VOC emissions to less than 25, 15 and 40 tons per year, respectively and render 326 IAC 2-2 (PSD) not applicable to the 2008 modification.

.....

P2exp Metal Limitation Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Pouring/Cooling ~~and P2exp Pre-Finishing Operations~~
Parameter: Metal throughput
Limit: The total throughput of metal shall be limited to less than ~~4,927~~**10,200** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

.....

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Mold Sand Reclamation **and P2exp-Mold Dump**
Parameter: Sand usage
Limit: The total usage of sand in the P2exp-Mold Sand Reclamation **and P2exp-Mold Dump** shall be limited to less than ~~14,780~~ **35,700** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

.....

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation

Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: ~~P2exp-Mold Sand Reclamation~~ **P2exp-Core Mixer**
Parameter: Sand usage
Limit: The total usage of sand in the P2exp-Core Mixer shall be limited to less than 450 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Change 3: The process weight rates have been updated.

D.3.4 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from these emission units shall not exceed the pound per hour limitation shown in the table below:

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Electric Induction Furnaces (each) (P2-EIF#1, P2-EIF#2, P2-EIF #3)	6	13.6
P2-Charge	18	28.4
P2-Pouring/Cooling	18	28.4
P2-Core Removal	24	34.5
P2-Shot blast Machine	24	34.5
P2-Pre-Finish	24	34.5
P2-Grinding Stations #1-#5	24	34.5
P2-Buffing Booth	24	34.5
P2-Putty Booth	24	34.5
P2-Shakeout	24	34.5
P2-Core Sand Handling	0.375	2.13
P2-Mold Sand Handling	165	56.4
P2exp-Pouring/Cooling	~~16~~**36** *	~~26.3~~**41.6**
P2exp-Mold Mixer	60	46.3
P2exp-Mold Sand Reclamation	~~10~~**28**	~~19.2~~**38.2**
P2exp-Mold Dump	~~16~~**36** *	~~26.3~~**41.6**
~~P2exp-Pre-Finish Station~~	~~6~~	~~13.6~~
~~P2exp-Blast Cabinet~~	~~6~~	~~13.6~~
~~P2exp-Core Removal Operation~~	~~6~~	~~13.6~~
~~P2exp-Grinding Station~~	~~6~~	~~13.6~~
P2exp-Core Mixer	3	8.56

* This process weight includes both metal (~~6~~**8** tons) and sand (~~10~~**28** tons).

.....

Change 4: The P2exp Pre-Finishing operations have been removed from the source.

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

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

.....

~~(p) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 6 tons of metal per hour, all with particulate emissions controlled by Baghouse B7, and all exhausting to stack P2expB7:~~

~~(1) One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.~~

~~(2) One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.~~

~~(3) One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.~~

~~(4) One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.~~

.....

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

.....

~~(p) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 6 tons of metal per hour, all with particulate emissions controlled by Baghouse B7, and all exhausting to stack P2expB7:~~

~~(1) One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.~~

~~(2) One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.~~

~~(3) One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.~~

~~(4) One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.~~

.....

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

.....

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

(a) To comply with Conditions D.3.1 and D.3.4, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), the P2exp-Mold Dump (Baghouse B6~~), and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7)~~ at all times that these facilities are in operation.

D.3.8 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), P2exp-Mold Dump (Baghouse B6)~~, and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7)~~ stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

.....

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces, the mold sand handling operation, the shakeout operations, the shot blast machine, the prefinish station, the coarse grinding stations, the buffing booth, the P2exp-Mold Sand Reclamation, the P2exp-Mold Dump~~, and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station~~ at least once per day, when these facilities are in operation when venting to the atmosphere. When for any one reading the pressure drop across the baghouses is outside the range of 1 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding 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.

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D.3.11 Record Keeping Requirements

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(c) To document the compliance status with Condition D.3.8, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), the buffing booth exhaust (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), P2exp-Mold Dump (Baghouse B6)~~, and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7)~~. 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).

.....

(e) To document the compliance status with Condition D.3.1(d), the Permittee shall maintain a monthly record of the metal throughput at emission unit P2exp-Pouring/Cooling~~ and the P2exp Pre-Finishing Operations~~.

.....

Change 5: Testing requirements have been added for Baghouse B6 and P2exp-Pouring/Cooling.

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

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(d) Within 180 days after issuance of this Significant Source Modification Permit 079-32661-00018, in order to demonstrate compliance with Condition D.3.1(d), the Permittee shall perform PM and PM_{10} testing on baghouse B6 controlling P2exp-Mold Sand Reclamation and P2exp-Mold Dump, utilizing methods as approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(e) Within 180 days after issuance of this Significant Source Modification Permit 079-32661-00018, in order to demonstrate compliance with Condition D.3.1(d), the Permittee shall perform PM and PM_{10} testing on P2exp-Pouring/Cooling, utilizing

methods as approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Change 6: Emission factors for various units have been revised. Therefore, in order to remain an Area Source of HAPs, an equation is used to determine compliance with the HAPs Minor Limits.

D.1.2 HAP Minor Limits [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

(a) Metal throughput to P1 emissions units shall be limited to less than 74,400 tons per twelve (12) consecutive month period.

(b) Particulate emissions from the P1 emission units shall be limited as specified in Condition D.1.1.

(c) The amount of HAP used in the P1-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, P2-Paint Booth #2 (listed in Section D.4) and P2exp-Pouring/Cooling shall be limited such that the HAPs emissions are ~~to~~ less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.6 tons per twelve (12) consecutive month period for any combination of HAPs.

Compliance with these limits~~, combined with the HAP usage limits in Conditions D.2.1, D.3.2, and D.4.1,~~ and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period and render the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.

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D.1.8 HAPs Minor Limit [326 IAC 2-4.1] [40 CFR 63]

Compliance with the HAP limits in condition D.1.2(c) shall be demonstrated using the following equation:

HAPs emissions = $H_{P1\text{-Core Making}} + H_{P1\text{-Filler/Putty}} + H_{P1\text{-Paint Booth \#2}} + H_{P1\text{- Paint Booth \#3}} + H_{P1\text{- Final Inspection Paint Booth}} + H_{P2\text{-Core Making}} + H_{P2\text{exp-Mold Mixer}} + H_{P2\text{-Filler/Putty}} + H_{P2\text{-Paint Booth \#1}} + H_{P2\text{-Paint Booth \#2}} + H_{P2\text{exp-Pouring/Cooling}}$ **< 19.6 (tons/yr) HAP Emissions**

Where:

$H_{P1\text{-Core Making}}$ **= [(Throughput P1-Core Making (lb resin) x Formaldehyde Emission Factor (0.001 lb/lb resin)) + (Throughput P1-Core Making (lb resin) x Phenol Emission Factor (0.0005 lb/lb resin))] x 1 ton / 2000 lb**
$H_{P1\text{-Filler/Putty}}$ **= Input of Styrene to P1-Filler/Putty**
$H_{P1\text{-Paint Booth \#2}}$ **= Input of Styrene to P1-Paint Booth #2**
$H_{P1\text{- Paint Booth \#3}}$ **= Input of Styrene to P1-Paint Booth #3**
$H_{P1\text{- Final Inspection Paint Booth}}$ **= Input of Styrene to P1-Final Inspection Paint Booth**
$H_{P2\text{-Core making}}$ **= [(Throughput P2-Core Making (lb resin) x Formaldehyde Emission Factor (0.001 lb/lb resin)) + (Throughput P2-Core Making (lb resin) x Phenol Emission Factor (0.0005 lb/lb resin))] x 1 ton / 2000 lb**
$H_{P2\text{exp-Mold Mixer}}$ **= Input of HAPs to the P2exp-Mold Mixer**
$H_{P2\text{-Filler/Putty}}$ **= Input of Styrene to P2-Filler/Putty**

$H_{P2\text{-}Paint\ Booth\ \#1}$ = Input of Styrene to P2-Paint Booth #1
$H_{P2\text{-}\ Paint\ Booth\ \#2}$ = Input of Styrene to P2-Paint Booth #2
$H_{P2exp\text{-}Pouring/Cooling}$ = Throughput P2exp-Pouring/Cooling (tons metal) x Total HAP Emission Factor (1.08 lb/ton metal))] x 1 ton / 2000 lb

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D.1.12 Record Keeping Requirements

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(b) To document the compliance status with Condition D.1.~~2~~**8**, the Permittee shall:

(1) Maintain records of the throughput of metal to the P1 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P1 emission units.

(2) Maintain records of the amount and HAP content ~~of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent~~ used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.1.~~2~~**8**.

.....

D.2.1 **Reserved**~~HAP Minor Limits [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]~~

~~The amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.~~

~~Compliance with these limits, combined with the HAP usage limits in Conditions D.1.2, D.3.2, and D.4.1, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period will render the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.~~

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D.2.10 Record Keeping Requirements

(a) **Reserved**~~To document the compliance status with Condition D.2.1, the Permittee shall maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.2.1.~~

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D.2.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition~~s D.2.1 and~~ D.2.2(d) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

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Compliance Determination Requirements *(Sections D.2, D.3 and D.4)*

Note: Please see HAPs compliance determination requirements listed in D.1.8.

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D.3.2 **Reserved**~~HAP Minor Limits [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]~~

~~(a) Metal throughput to P2 emissions units shall be limited to less than 88,000 tons per twelve (12) consecutive month period.~~

~~(b) Particulate emissions from the P2 and P2exp emission units shall be limited as specified in Condition D.3.1.~~

~~(c) The amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.~~

~~Compliance with these limits, combined with the HAP usage limits in Conditions D.1.2, D.2.1, and D.4.1, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period and render the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.~~

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D.3.11 Record Keeping Requirements

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(b) To document the compliance status with Condition D.3.2, the Permittee shall:

(1) Maintain records of the throughput of metal to the P2 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P2 emission units.

~~(2) Maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 and P2exp emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.3.2.~~

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D.3.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.3.1 ~~and D.3.2(a) and (c)~~ shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition

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D.4.1 **Reserved**~~HAP Minor Limits [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]~~

~~The amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.~~

~~Compliance with these limits, combined with the HAP usage limits in Conditions D.1.2, D.2.1, and D.3.2, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period and render the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.~~

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D.4.10 Record Keeping Requirements

(a) The Permittee shall maintain records required under 326 IAC 3-5-6 at the source in a manner that they may be inspected by the IDEM, OAQ, or the US EPA, if so requested or required.

(b) **Reserved**~~To document the compliance status with Condition D.4.1, the Permittee shall maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.4.1.~~

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D.4.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition~~s D.4.1 and~~ D.4.2(c) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

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HAP Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265
Part 70 Permit No.: T079-29942-00018
Facility: P1 - Core Making, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth, P2-Core Making, P2exp-Mold Mixer, P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2
Parameter: HAP Usage
Limit: Less than ten (10) tons for a single HAP and less than 19.6 tons for a combination of HAPs per twelve (12) month consecutive period.

QUARTER : YEAR:

Month	Column 1		Column 2		Column 1 + Column 2	
	This Month		Previous 11 Months		12 Month Total	
	Single HAP (tons)	Total HAPs (tons)	Single HAP (tons)	Total HAPs (tons)	Single HAP (tons)	Total HAPs (tons)
Month 1						
Month 2						
Month 3						

Change 6: Throughput limit for P2exp-Core Mixer changed from 66,000 lbs/yr to 450 tons/yr.

D.3.1 PSD Minor Limits [326 IAC 2-2]

.....

(d) The P2exp-Pouring/Cooling, P2exp-Mold Sand Reclamation, P2exp-Mold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station, constructed in 2008 have uncontrolled PM and PM_{10} emissions greater than 25 and 15 tons per year, respectively. Pursuant to Significant Permit Modification No. 079-25513-00018, issued on May 21, 2008, and modified in this Significant Permit Modification 079-32661-00018, the throughput of metal to each of the following facilities shall be as follows:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
P2exp-Core Mixer	none	~~66,000 pounds~~ **450 tons** core sand per twelve consecutive month period	~~None~~ **3.6 lb/ton**	~~None~~ **0.54 lb/ton**	~~None~~ **1.17 lb/ton**

.....

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 4th Street, North Vernon, Indiana 47265

Part 70 Permit No.: T079-29942-00018
Facility: P2exp-Mold Sand Reclamation
Parameter: Sand usage
Limit: The total usage of sand in the P2exp-Core Mixer shall be limited to less than ~~33~~ **450** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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Change 7: Previous permit had incorrect emissions shown in calculations. P1-Shakeout, P1-Mold Sand Handling, P1-Core Removal, P1-Pre-Finish, P1-Grinding #1 - #5 should have had PSD minor limits for each unit, instead of combined limits. After including these limits for each unit, the PSD minor limit for P1-EIF#1 and P1-EIF#2 was needed to be revised in order to keep the source less than 100 tons per year for the 1998 modification and 2003 modification. P1-EIF and P2-EIF have previously been tested, therefore the source is able to comply with the changes to limits below:

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

(a) For the P1 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and the PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P1-EIF#1, P1-EIF#2	74,400 total	~~0.75~~ **0.5**	~~0.75~~ **0.56**
P1-Shakeout, P1-Mold Sand Handling	74,400 each	0.32	0.32
P1-Shot Blast Machine #1	74,400	0.03	0.03
P1-Core Removal, P1-Pre-Finish, P1-Grinding #1 - #5	74,400 each	0.09	0.09
P1-Buffing Booth	74,400	0.08	0.08
P1-Charge	74,400	0.6	0.36
P1-Pouring/Cooling	74,400	0.1	0.1
P1-Core Sand Handling	74,400	0.075	0.011
P1-Final Inspection Buffing	74,400	0.0045	0.0045
P1-Putty Booth	74,400	0.0045	0.0045

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D.3.1 PSD Minor Limits [326 IAC 2-2]

(a) For the P2 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P2-EIF#1, P2-EIF#2, P2-EIF #3	88,000 total	~~0.75~~ **0.4**	~~0.75~~ **0.52**
P2-Shakeout, P2-Mold Sand Handling	88,000 each	0.32	0.32
P2-Shot Blast Machine	88,000	0.03	0.03

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P2-Pre-Finish, P2-Putty Booth, P2-Grinding #1 - #5	88,000 each	0.08	0.08
P2-Core Removal	88,000	0.065	0.01
P2-Charge	88,000	0.36	0.36
P2-Pouring/Cooling	88,000	0.1	0.1
P2-Core Sand Handling	88,000	0.075	0.011
P2-Buffing Booth	88,000	0.08	0.08

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Other Changes

The changes listed below have been made to Part 70 Operating Permit No. 079-32218-00018. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1: On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules in Section A - General Information, Section A - Emission Units and Pollution Control Equipment Summary, Section A - Specifically Regulated Insignificant Activities, Section B - Preventative Maintenance Plan, Section B - Emergency Provisions, Section B - Operational Flexibility, Section C - Risk Management Plan, and Section D - Preventative Maintenance Plan.

IDEM, OAQ has clarified the rule sites for the Preventive Maintenance Plan.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5**(14)** ~~(15)~~][326 IAC 2-7-1(22)]

.....

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5**(14)** ~~(15)~~]

.....

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] 326 IAC 2-7-5(**14)** ~~(15)~~]

.....

B.10 Preventive Maintenance Plan [326 IAC 2-7-5~~(1),(3) and (13)~~ **(12)**] [~~326 IAC 2-7-6(1) and (6)~~][326 IAC 1-6-3]

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

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(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)~~(9)~~ **(8)** be revised in response to an emergency.

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B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b)~~,~~ **or** (c)~~, or (e)~~ without a prior permit revision, if each of the following conditions is met:

.....

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-

20(b)~~,~~ **or** (c)~~, or (e)~~. The Permittee shall make such records available, upon reasonable request, for public review.

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

.....

C.13 Risk Management Plan [326 IAC 2-7-5(**11**~~12~~)] [40 CFR 68]

.....

Change 2: On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions included the incorporation of the U.S. EPA's definition of reasonable possibility. The permit previously sited to the EPA definition. Also, the revisions resulted in changes to other rule sites listed in the permit. Neither of these changes are changes to the underlining provisions. The change is only to site of these rules in Section C - General Reporting and Section C - General Recordkeeping.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

.....

(c) If there is a reasonable possibility (as defined in ~~40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)~~ **326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)**) that a "project" (as defined in 326 IAC 2-2-1(~~qq~~ **oo**) and/or 326 IAC 2-3-1(~~ll~~ **jj**)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(~~ee~~ **dd**) and/or 326 IAC 2-3-1(~~z~~ **y**)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(~~rr~~ **pp**) and/or 326 IAC 2-3-1(~~mm~~ **kk**)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(~~qq~~ **oo**) and/or 326 IAC 2-3-1(~~ll~~ **jj**)) at an existing emissions unit, document and maintain the following records:

.....

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

.....

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(~~rr~~ **pp**)(2)(A)(iii) and/or 326 IAC 2-3-1 (~~mm~~ **kk**)(2)(A)(iii); and

.....

(d) If there is a reasonable possibility (as defined in ~~40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)~~ **326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)**) that a "project" (as defined in 326 IAC 2-2-1(~~qq~~ **oo**) and/or 326 IAC 2-3-1(~~ll~~ **jj**)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(~~ee~~ **dd**) and/or 326 IAC 2-3-1(~~z~~ **y**)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(~~rr~~ **pp**) and/or 326 IAC 2-3-1(~~mm~~ **kk**)), the Permittee shall comply with following:

.....

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (~~qq~~ **oo**) and/or 326 IAC 2-3-1 (~~ll~~ **jj**)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to:

.....

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (~~xx~~ **ww**) and/or 326 IAC 2-3-1 (~~qq~~ **pp**), for that regulated NSR pollutant, and

.....

Change 3: IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

(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 Part 70 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.

.....

Change 4: IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)] **[40 CFR 64][326 IAC 3-8]**

(a) 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 2-7-6(1) by a "responsible official" as defined by

326 IAC 2-7-1(34).

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

(b) **For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.**

(c) **For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. 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.14 Response to Excursions or Exceedances **[40 CFR 64][326 IAC 3-8]** [326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
(1) Failed to address the cause of the control device performance problems; or
(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing,

reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) ***CAM recordkeeping requirements.***

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

.....

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] **[40 CFR 64][326 IAC 3-8]**

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and 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 actions 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 daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

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Change 5: On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule site of the "responsible official" definition. The rule site for responsible official has changed from 326 IAC 2-7-1 (34) to 326 IAC 2-7-1 (35).

Change 6: Testing dates clarified in D.1.7 and D.3.7.

D.1.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

(a) In order to determine compliance with Conditions D.1.1(a) and D.1.3, the Permittee shall perform PM and PM_{10} testing by May **31,** 2013 on baghouses controlling the two (2) electric induction furnaces, identified as P1-EIF#1 and P1-EIF#2 **(ID No. Area 1)**, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

.....

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

(a) In order to determine compliance with Conditions D.3.1(a) and D.3.4, the Permittee shall perform PM and PM_{10} testing by May **31,** 2013 on three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, P2-EIF #3 and the control device (Baghouse 1) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

.....

Change 7: The specific baghouse/stacks are identified for Visible Emissions requirements and Parametric Monitoring in D.1.9, D.1.10, D.1.12, D.3.9 and D.3.11. Also, IDEM, OAQ, has decided to clarify Conditions D.1.10 and D.3.9 Parametric Monitoring.

D.1.9 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the electric induction furnaces **(stack P1B1)**, mold sand handling **(stack P1B2)**, shakeout operations **(stack P1B2)**, pre-finishing **(stack P1B5)**, core removal station **(stack P1B5)**, shot blast machines**(stack P1B4)**, coarse grinding operations **(stack P1B5)**, buffing station **(stack P1B3)**~~, and final inspection buffing station~~ stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

.....

D.1.10 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces **(ID No. Area 1)**, the mold sand handling **(ID No. Area 2)**, the shakeout operations **(ID No. Area 2)**, the pre-finishing station **(ID No. Area 5)**, the core removal station **(ID No. Area 5)**, the shot blast machines **(ID No. Area 4)**, the coarse grinding station **(ID No. Area 5)**, buffing station **(ID No. Area 3)**, and final inspection buffing station operations **(ID No. Final Inspection Collector)** at least once per day when these units are in operation. ~~When the pressure drop across the baghouses is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps~~. **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 1.0 and 8.0 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.

.....

D.1.12 Record Keeping Requirements

.....

(b) To document the compliance status with Condition D.1.9, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Area 1), the mold sand handling and shakeout operations exhaust (Area 2), the buffing station exhaust (Area 3), shot blast machine exhaust (Area 4), pre-finishing, core removal station, coarse grinding operations exhaust (Area 5)~~, and final inspection buffing station exhaust (Final Inspection Collector)~~. 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.1.10 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling ~~the processes~~ **the electric induction furnaces (ID No. Area 1), the mold sand handling (ID No. Area 2), the shakeout operations (ID No. Area 2), the pre-finishing station (ID No. Area 5), the core removal station (ID No. Area 5), the shot blast machines (ID No. Area 4), the coarse grinding station (ID No. Area 5), buffing station (ID No. Area 3), and final inspection buffing station operations (ID No. Final Inspection Collector)** when venting to the atmosphere 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.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces **(Baghouse 1)**, the mold sand handling operation **(Baghouse 2)**, the shakeout operations **(Baghouse 2)**, the shot blast machine **(Baghouse 3)**, the prefinish station **(Baghouse 4)**, the coarse grinding stations **(Baghouse 4)**, the buffing booth **(Baghouse 5)**, the P2exp-Mold Sand Reclamation **(Baghouse B6)**, the P2exp-Mold Dump **(Baghouse B6)** at least once per day, when these facilities are in operation when venting to the atmosphere. ~~When for any one reading the pressure drop across the baghouses is outside the range of 1 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps.~~ **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 1.0 and 8.0 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 obligations with regard to responding 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.

D.3.11 Record Keeping Requirements

.....

(d) To document the compliance status with Condition D.3.9 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling ~~the processes~~ **the electric induction furnaces (Baghouse 1), the mold sand handling operation (Baghouse 2), the shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station (Baghouse 4), the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation**

(Baghouse B6), the P2exp-Mold Dump (Baghouse B6) when venting to the atmosphere. 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).

.....

Change 7: The following clarifications were made:

D.2.10 Record Keeping Requirements

.....

(1) The amount ~~and~~ VOC and solids content of each coating material and solvent used less water on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

.....

(c) To document the compliance status with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, and the daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur. **The Permittee shall include in its daily record when an inspection is not performed and the reason for the lack of an inspection (e.g. the process did not operate that day)**.

.....

D.4.10 Record Keeping Requirements

.....

(d) To document the compliance status with Condition D.4.9, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur. **The Permittee shall include in its daily record when an inspection is not performed and the reason for the lack of an inspection (e.g. the process did not operate that day)**.

.....

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(h) One (1) Core Making Operation, consisting of the following emissions units:

.....

(2) One (1) Beta set core machine, identified as P2-Core Machine, constructed in 2004, with a rated capacity of 750 pounds of cores per hour, using 2.93 gallons of resin per hour, 1.25 gallons of release agent #1 per hour, and 0.50 gallons of release agent #2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

.....

(m) One (1) Finishing Operation, consisting of the following emissions units:

~~(1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, constructed in 2004, with a maximum rate 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.~~

~~(2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, constructed in 2004, each utilizes an HVLP spray gun, using dry filters for particulate control, exhausting inside the building, then to general ventilation..~~

~~(A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.~~

~~(B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.~~

~~(3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, constructed in 2004, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.~~

(4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.

(5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

.....

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

.....

D.3.3 Volatile Organic Compound Usage Limitations [326 IAC 8-1-6]

The amount of VOC used in the P2-Core Machine, including resin, release agent #1, and release agent #2, shall be limited to less than 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

.....

Change 8: The Organic Solvent Degreasing Operations (326 IAC 8-3-2 and 326 IAC 8-3-8) rules have been updated.

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

(a) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers constructed after January 1, 1980, the Permittee shall ensure the following control equipment and operating requirements are met:

(~~a~~**1**) Equip the ~~cleaner~~ **degreaser** with a cover.

(~~b~~**2**) Equip the ~~cleaner~~ **degreaser** with a ~~facility~~ **device** for draining cleaned parts.

(~~c~~**3**) Close the degreaser cover whenever parts are not being handled in the ~~cleaner;~~ **degreaser.**

(~~d~~**4**) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(~~e~~**5**) Provide a permanent, conspicuous label ~~summarizing~~ **that lists** the operati~~on~~**ing** requirements~~;~~ **in subdivisions (3), (4), (6), and (7).**

(~~f~~**6**) Store waste solvent only in ~~covered~~**closed** containers**.** ~~and not dispose~~

(7) **Prohibit the disposal or transfer** of waste solvent ~~or transfer it to another party,~~ in such a manner that **could allow** greater than twenty percent (20%) of the waste solvent (by weight) ~~can~~**to** evaporate into the atmosphere.

(b) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

.....

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

D.5.5 Record Keeping Requirements

(a) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:

(1) The name and address of the solvent supplier.
(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).
(3) The type of solvent purchased.
(4) The total volume of the solvent purchased.
(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification (079-32218-00018) and Significant Permit Modification (079-32661-00018). The staff recommend to the Commissioner that this Part 70 Significant Source and Significant Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Heath Hartley 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) 232-8217 or toll free at 1-800-451-6027 extension 232-8217.

(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
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Uncontrolled emissions after the modification

P1 - Uncontrolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P1-ElF#1 and P1-ElF#2	47.304	45.2016	0	0	0	0	Single HAP >10 Combined HAPs > 25
P1-Charge	31.536	18.9216	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.0010512	0.01	0.15	0.18	
P1-Pouring/Cooling	221	108	1.05	63.1	315.36	0.53	
P1-Shakeout, P1-Mold Sand Handling	168	118	0			0	
P1-Molding Machine	0	0	0	> 100	0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, #3, P1-Paint Booth Dryers #1, #2 &#3, P1-Final Inspection Paint Booth	73.91282	73.91282009	0.00001		0.0012	0.0015	
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	1.97	0.30	0	0	0	0	
P1-Shot Blast Machine #1	894	89.352	0	0	0	0	
P1-Core Removal, P1-Pre-Finish, P1-Grinding Stations #1-#5	896.2	89.94	0	0	0	0	
P1-Buffing Booth	4.2	4.2	0	0	0	0	
P1-Final Inspection Buffing Booth	0.24	0.24	0	0	0	0	
P1-Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
Sub-Total Emissions (After Mod)	2339.0	549.2	1.2	> 163.8	325.2	13.3	Single HAP >10 Combined HAPs > 25
Sub-Total Emissions (Prior to Mod)	2339.0	549.2	1.2	> 163.8	325.2	13.3	
Sub-Total Change	**0**	**0**	**0**	**0**	**0**	**0**	

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Uncontrolled emissions after the modification

P2 - Uncontolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P2-EIF#1, P2-EIF#2, P2-EIF#3	71	67.8	0	0	0	0	Single HAP >10 Combined HAPs > 25
P2-Charge	47.3	28.4	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	331	162	1.58	94.6	473.04	0.79	
P2-Shakeout, P2-Mold Sand Handling	252	177	0			0	
P2-Molding Machine	0	0	0	> 100	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryer #1, #2	70.2	70.2	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	5.91	0.89	0	0	0	0	
P2-Shot Blast Machine	1340	134	0	0	0	0	
P2-Pre-Finish, P2-Grindding Station#1-#5, P2-Putty Booth	1340.7	134.7	0	0	0	0	
P2-Buffing Booth	4.73	4.73	0	0	0	0	
P2-Core Removal	5.12	0.77	0	0	0	0	
P2exp-Pouring/Cooling	147.17	72.18	0.70	79.54	210.24	0.35	
P2exp-Mold Mixer	0	0	0	> 40	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	441.5	66.2	0	0	0	0	
P2exp-Mold Dump	112.13	78.49	0	0.22	14.8	0	
P2exp-Core Mixer	946.08	141.91	0	307.48	0	0	
P2-Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
Sub-Total Emissions	5116.42	1140.88	2.50	483.04	714.68	22.21	
Total Emissions (After Mod)	7455.4	1690.1	3.7	786.8	1039.9	35.5	Single HAP >10 Combined HAPs > 25
Total Emissions (Prior to Mod)	4084.4	2437.0	5.3	806.8	1477.0	57.3	
Total Uncontrolled Change	**3371.0**	**-746.9**	**-1.6**	**-19.9**	**-437.1**	**-21.8**	

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Limited emissions after the modification

P1 - Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P1-ElF#1 and P1-ElF#2[(a)]	18.60	20.83	0	0	0	0	
P1-Charge	22.32	22.32	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	3.72	3.72	1.05			0.53	
P1-Shakeout	11.9	11.9	0	6.7	89.3	0	
P1-Mold Sand Handling	11.9	11.9	0			0	
P1-Molding Machine	0	0	0		0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, #3, P1-Paint Booth Dryers #1, #2 &#3, P1-Final Inspection Paint Booth	12.8	12.8	0.00001	89.33	0.0012	0.0015	9.17
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	2.79	0.41	0	0	0	0	
P1-Shot Blast Machine #1	1.12	1.12	0	0	0	0	
P1-Core Removal	3.35	3.35	0	0	0	0	
P1-Pre-Finish	3.35	3.35	0	0	0	0	
P1-Grinding Stations #1-#5	3.35	3.35	0	0	0	0	
P1-Buffing Booth	2.98	2.98	0	0	0	0	
P1-Final Inspection Buffing Booth	0.17	0.17	0	0	0	0	
P1-Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
Sub-Total Emissions (1998 Mod)	99.48	99.33	1.21	96.76	99.17	13.32	9.17
Total Emissions (Existing)	99.48	99.33	1.21	96.76	99.17	13.32	10.32
Sub-Total Change	**0**	**0**	**0**	**0**	**0**	**0**	**-1.15**

(a) Emission limit corrected for P1-ElF#1 and P1-ElF#2 in order to keep 1998 modification < 100 tons per year.

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Limited emissions after the modification

P2 - Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P2-EIF#1, P2-EIF#2, P2-EIF#3[(b)]	17.6	22.9	0	0	0	0	9.90
P2-Charge	15.8	15.8	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	4.4	4.4	1.58	8.0	82.3		
P2-Shakeout	14.1	14.1	0				
P2-Mold Sand Handling	14.1	14.1	0			0	
P2-Molding Machine	0	0	0	89.92	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryer #1, #2	10.51	10.51	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	3.3	0.5	0	0	0	0	
P2-Shot Blast Machine	1.32	1.32	0	0	0	0	
P2-Pre-Finish	3.52	3.52	0	0	0	0	
P2-Grinding Station#1-#5	3.52	3.52	0	0	0	0	
P2-Putty Booth	3.52	3.52	0	0	0	0	
P2-Buffing Booth	3.52	3.52	0	0	0	0	
P2-Core Removal	2.86	0.44	0	0	0	0	
P2-Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
Sub-Total Emissions (2003 Mod)	99.65	99.71	1.80	99.12	98.90	21.07	9.90
P2exp-Pouring/Cooling	10.71	8.16	0.70	11.58	30.6	0.35	5.52
P2exp-Mold Mixer	0	0	0	9.73	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	4.82	1.25	0	0	0	0	
P2exp-Mold Dump			0	0	14.8	0	
P2exp-Core Mixer	0.81	0.12	0	0.26	0	0	
ATPA Emissions Increase	6.06	4.76	0	3.23	0	0	NA
Sub-Total Emissions (2008 Mod)	22.4	14.3	0.7	24.8	45.4	0.4	5.5
Total Emissions (After Mod)	221.5	213.3	3.7	220.7	243.5	34.7	24.6
Total Emissions (Prior to Mod)	222.7	213.9	3.5	209.4	227.7	34.7	19.4
Total Limted Change	**-1.2**	**-0.6**	**0.2**	**11.3**	**16**	**0**	**5.2**

(b) Emission limit corrected for P2-EIF#1, P2-EIF#2, P2-EIF#3 in order to keep 2003 modification < 100 tons per year.

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the total uncontrolled emissions prior to the modification

P1 - Uncontrolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P1-EIF#1 and P1-EIF#2	47.3	45.2	0	0	0	0	
P1-Charge	31.5	18.9	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	221	108	1.05	63.1	315.36	0.53	
P1-Shakeout, P1-Mold Sand Handling	168	118	0			0	
P1-Molding Machine, P1-Mold Wash, P1-Mold Dryer#1, P1-Molding Dryer#2	0	0	0	> 100	0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, #3, P1-Paint Booth Dryers #1, #2 &#3, P1-Final Inspection Paint Booth	73.9	73.9	0.00001		0.0012	0.0015	
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	1.97	0.30	0	0	0	0	
P1-Shot Blast Machine #1	894	89.4	0	0	0	0	
P1-Core Removal, P1-Pre-Finish, P1-Grinding Stations #1-#5	896.2	89.9	0	0	0	0	
P1-Buffing Booth	4.2	4.2	0	0	0	0	
P1-Final Inspection Buffing Booth	0.24	0.24	0	0	0	0	
P1-Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
Sub-Total Emissions	2339.0	549.2	1.21	> 163.8	325.23	13.32	Single HAP >10 Combined HAPs > 25

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the total uncontrolled emissions prior to the modification

P2 - Uncontolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P2-EIF#1, P2-EIF#2, P2-EIF#3	71	67.8	0	0	0	0	Single HAP >10 Combined HAPs > 25
P2-Charge	47.3	28.4	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	331	162	1.58	94.6	473.04	0.79	
P2-Shakeout, P2-Mold Sand Handling	252	177	0			0	
P2-Molding Machine, P2-Mold Dryer#1, P2-Mold Dryer#2, P1-Molding Wash	0	0	0	> 100	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryer #1, #2	70.2	70.2	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	5.91	0.89	0	0	0	0	
P2-Shot Blast Machine	1340	134	0	0	0	0	
P2-Pre-Finish, P2-Grindding Station#1-#5, P2-Putty Booth	1340.7	134.7	0	0	0	0	
P2-Buffing Booth	4.73	4.73	0	0	0	0	
P2-Core Removal	5.12	0.77	0	0	0	0	
P2-Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
Sub-Total Emissions	3469.54	782.07	1.80	95.80	489.64	21.86	
P2exp-Pouring/Cooling	110.4	54.14	0.53	3.68	157.7	0.26	
P2exp-Mold Mixer	0	0	0	> 40	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	157.7	23.65	0	0	0	0	
P2exp-Mold Dump	84.1	58.87	0	0.22	14.8	0	
P2exp-Pre-Finish Station	0.12	0.12	0	0	0	0	
P2exp-Blast Cabinet	446.8	44.68	0	0	0	0	
P2exp-Core Removal Operation	0.12	0.12	0	0	0	0	
P2exp-Grinding Station	0.12	0.12	0	0	0	0	
P2exp-Core Mixer	946.08	141.91	0	307.48	0	0	
Sub-Total Emissions	1745.44	1887.75	4.14	502.98	1151.77	43.99	
Total Emissions	4084.40	2436.96	5.35	806.78	1477.01	57.30	Single HAP >10 Combined HAPs > 25

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Limited emissions prior to the modification

P1 - Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P1-EIF#1 and P1-EIF#2[c]	18.60	20.83	0	0	0	0	
P1-Charge	22.32	22.32	0	0	0	0	
P1-Ladle Preheater	0.01	0.01	0.001	0.01	0.15	0.18	
P1-Pouring/Cooling	3.72	3.72	1.05			0.53	
P1-Shakeout[a]	11.9	11.9	0	6.7	89.3	0	
P1-Mold Sand Handling[a]	11.9	11.9	0			0	
P1-Molding Machine, P1-Mold Wash, P1-Mold Dryer#1, P1-Molding Dryer#2	0	0	0		0	0	
P1-Core Machine	0.0004	0.0004	0.00006		0.0023	0.013	
P1-Paint Booths #2, #3, P1-Paint Booth Dryers #1, #2 &#3, P1-Final Inspection Paint Booth	12.8	12.8	0.00001	89.33	0.0012	0.0015	Single HAP <10 Combined HAPs < 25
P1-Putty Booth	0.17	0.17	0		0	0	
P1-Filler/Putty Application	0	0	0		0	0	
P1-Core Sand Handling	2.79	0.41	0	0	0	0	
P1-Shot Blast Machine #1	1.12	1.12	0	0	0	0	
P1-Core Removal	3.35	3.35	0	0	0	0	
P1-Pre-Finish[b]	3.35	3.35	0	0	0	0	
P1-Grinding Stations #1-#5[b]	3.35	3.35	0	0	0	0	
P1-Buffing Booth	2.98	2.98	0	0	0	0	
P1-Final Inspection Buffing Booth	0.17	0.17	0	0	0	0	
P1-Insignificant Activities	0.95	0.95	0.16	0.72	9.72	12.6	
Sub-Total Emissions	99.5	99.3	1.2	96.8	99.2	13.3	Single HAP <10 Combined HAPs < 25

(a) P1-Mold Sand Handling has been separated from P1-Shakeout and emissions are shown for each.
(b) P1-Pre-Finish and P1-Grinding Station #1 - #5 have been separated from P1-Core Removal and emissions are shown for each.
(c) P1-EIF 1 & P1-EIF 2 limits have been corrected in order to keep the 1998 modification < 100 ton/yr.

Appendix A: Emissions Calculations
Emission Summary

Source Name: North Vernon Industry Corporation
Source Location: 3750 4th Street, North Vernon, IN 47265
Permit Number: SSM 079-32218-00018 and SPM 079-32661-00018
Permit Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the Total Limited emissions prior to the modification

P2 - Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit							
P2-EIF#1, P2-EIF#2, P2-EIF#3[f]	17.6	22.9	0	0	0	0	Single HAP <10 Combined HAPs < 25
P2-Charge	15.8	15.8	0	0	0	0	
P2-Ladle Preheater	0.03	0.03	0.003	0.02	0.37	0.44	
P2-Pouring/Cooling	4.4	4.4	1.58	8.0	82.3	0	
P2-Shakeout	14.1	14.1	0			0	
P2-Mold Sand Handling[d]	14.1	14.1	0			0	
P2-Molding Machine, P2-Mold Dryer#1, P2-Mold Dryer#2, P1-Molding Wash	0	0	0	89.92	0	0	
P2-Core Machine	0.0009	0.0009	0.00014		0.006	0.033	
P2-Paint Booths #1, #2, P2-Paint Booth Dryer #1, #2	10.51	10.51	0.000001		0.0012	0.0015	
P2-Filler/Putty Application	0	0	0		0	0	
P2-Core Sand Handling	3.3	0.5	0	0	0	0	
P2-Shot Blast Machine	1.32	1.32	0	0	0	0	
P2-Pre-Finish	3.52	3.52	0	0	0	0	
P2-Grinding Station#1-#5[e]	3.52	3.52	0	0	0	0	
P2-Putty Booth[e]	3.52	3.52	0	0	0	0	
P2-Buffing Booth	3.52	3.52	0	0	0	0	
P2-Core Removal	2.86	0.44	0	0	0	0	
P2-Insignificant Activities	1.55	1.55	0.22	1.18	16.22	20.6	
Sub-Total Emissions	99.65	99.71	1.80	99.12	98.90	21.07	
P2exp-Pouring/Cooling	13.8	8.5	0.53	0.34	14.78	0.26	
P2exp-Mold Mixer	0	0	0	9.73	0	0	
P2exp-Mold Wash	0	0	0		0	0	
P2exp-Mold Sand Reclamation	6.43	4.21	0	0	0	0	
P2exp-Mold Dump			0	0.22	14.8	0	
P2exp-Pre-Finish Station	0.84	0.074	0	0	0	0	
P2exp-Blast Cabinet			0	0	0	0	
P2exp-Core Removal Operation			0	0	0	0	
P2exp-Grinding Station			0	0	0	0	
P2exp-Core Mixer	0.06	0.01	0	0.00	0	0	
ATPA Emissions Increase	2.46	2.06	0	3.19	0	0	
Sub-Total Emissions	23.59	14.85	0.53	13.48	29.58	0.26	
Total Emissions	222.7	213.9	3.5	209.4	227.7	34.7	Single HAP <10 Combined HAPs < 25

(d) P2-Mold Sand Handling has been separated from P2-Shakeout and emissions are shown for each.
(e) P2-Grinding Station #1 - #5 and P2-Putty Booth have been separated from P2-Pre-Finish and emissions are shown for each.
(f) P2-EIF#1, P2-EIF#2, P2-EIF#3 limits have been corrected in order to keep the 2003 modification < 100 ton/yr.

Appendix A: Emissions Calculations: P2 HAPs

This page reflects the P2 Limited HAPs prior to the modification

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

Total HAPs - Current Permit

Metallic HAPs	Limited Capacity	PTE PM (limited)	PTE lead	PTE manganese	Total Metallic HAP
Process:	(tons iron/yr)	(tons/yr)	(ton/yr)	(ton/yr)	(ton/yr)
P2-Scrap and Charge Handling [b]	88,000	26.4	0.102	0.82	2.36
P2-Electric Induction Furnaces (PM) [b]	88,000	33.0	0.127	1.02	
P2-Pouring/Cooling [b]	88,000	4.40	0.017	0.14	
P2-Castings Cleaning and Finishing [b]	88,000	3.96	0.015	0.12	

Misc. Combustion HAPs	Maximum Capacity	Units	Combustion HAP Emission Factor	PTE	Total Misc. Combustion HAP
Process:			(lbs HAP/lb input)	(ton/yr)	(ton/yr)
P2-Pouring/Cooling & P2 Shakeout[a]	102.9	(tons plastic and resin/yr)	0.01121 lbs Benzene/lb	1.15	2.03
P2-Pouring/Cooling & P2 Shakeout[a]	102.9	(tons plastic and resin/yr)	0.000975 lbs Phenol/lb	0.10	
P2-Pouring/Cooling & P2 Shakeout[a]	102.9	(tons plastic and resin/yr)	0.003989 lbs other HAPs/lb	0.41	
P2-Emergency Generators [c]	1.54	MMBtu/hr	0.00405 lbs/MMBtu	0.002	
P2-Natural Gas Combustion [c]	44.1	MMBtu/hr	1.89 lbs/MMCF	0.365	

Volatile HAPs	Max. Use Rate	HAP	Emission Factor [d]	PTE	Total Organic HAP
Process:			(lb/gal)	(ton/yr)	(ton/yr)
P2-Core Making	22.5 lbs resin/hr	Formaldehyde	0.001 lbs/lb resin	0.10	4.70
P2-Core Making	22.5 lbs resin/hr	Phenol	0.0005 lbs/lb resin	0.05	
P2-Fill/Putty Application	1.6 gal putty/hr	Styrene	0.19 lbs/gal	1.33	
P2-Paint Booth #1	5.25 gal paint/hr	Styrene	0.14 lbs/gal	3.22	
				Total P2 HAP	**9.09**
			current	**Total P1 + P2 HAP**	**19.4**

[a] PTE for Miscellaneous Combustion HAPs for Pouring/Cooling and Shakeout are based on total input of organic materials to the mold making and core making process. Assume that the resin in the cores (2.93 gal/hr) and plastic in the molds (1.0 lbs/hr) are combusted/volatilized during pouring/cooling/shakeout. Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 1: Phenolic Nobake Binder, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.

[b] PTE for metallic HAPs is based on percentage of HAPs in casting metal. Assume all PM/PM10 emitted from these processes is from metallic castings. Casting metal is 0.385% lead and 3.1% manganese by weight.

[c] Emission factors for Emergency Generator Combustion are from AP-42, Table 3.3-2. Emission factors for Natural Gas Combustion are from AP-42, Table 3.3-2.

[d] Emission Factors for Volatile HAPs in filler putty and paint are provided by source from MSDS sheets.

[d] Emission Factors for Volatile HAPs in the Core Making Resin are from analytical testing of the resin provided by source.

Methodology

PTE Metallic HAPs (tons/yr) = Limited PM/PM10 emissions (tons/yr) x Weight % HAPs (%)
PTE Misc. Combustion HAPs (tons/yr) = Maximum Capacity (ton/yr) x Emission Factor (lb HAP/lb input)
PTE Misc. Combustion HAPs (Emerg. Generator) (tons/yr) = Maximum Capacity (MMBtu/hr) x Emission Factor (lb HAP/MMBtu x 8760 (hrs/yr) x 1 ton/2,000 lbs
PTE for Volatile HAP (tons/yr) = Maximum Usage Rate (gallons/hr) x Emission Factor (lb/gallon) x 8760 (hr/yr) x 1/2000 (ton/lb)

Appendix A: Emissions Calculations: P2 HAPs

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Title V: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

This page reflects the P2 Limited HAPs after the modification

Total HAPs - Modification (new emission factors) **Limited**

Metallic HAPs	Limited Capacity	PTE PM (limited)	PTE lead	PTE manganese	Total Metallic HAP
Process:	(tons iron/yr)	(tons/yr)	(ton/yr)	(ton/yr)	(ton/yr)
P2-Scrap and Charge Handling	88,000	26.4	0.102	0.82	2.41
P2-Electric Induction Furnaces (PM)	88,000	33.0	see calculation below*	see below*	
P2-Pouring/Cooling & P2exp-P/C [b]	88,000	4.40	0.02	0.07	
P2-Castings Cleaning and Finishing	88,000	3.96	0.015	0.12	

Misc. Combustion HAPs	Capacity	Units	Combustion HAP Emission Factor	PTE	Total Misc. Combustion HAP
Process:			(lbs HAP/lb input)	(ton/yr)	(ton/yr)
P2-Pouring/Cooling & P2 Shakeout[a]	102.9	(tons plastic and resin/yr)	0.818 lbs Benzene/ton	0.04	0.41
P2-Pouring/Cooling & P2 Shakeout[a]	102.9	(tons plastic and resin/yr)	0.106 lbs Toluene/ton	0.01	
P2-Emergency Generators [c]	1.54	MMBtu/hr	0.00405 lbs/MMBtu	0.002	
P2-Natural Gas Combustion [c]	44.1	MMBtu/hr	1.89 lbs/MMCF	0.365	

Volatile HAPs	Max. Use Rate	HAP	Emission Factor [d]	PTE	Total Org HAP
Process:			(lb/gal)	(ton/yr)	(ton/yr)
P2-Core Making	22.5 lbs resin/hr	Formaldehyde	0.001 lbs/lb resin	0.10	7.07
P2-Core Making	22.5 lbs resin/hr	Phenol	0.0005 lbs/lb resin	0.05	
P2-Fill/Putty Application	1.6 gal putty/hr	Styrene	0.19 lbs/gal	1.33	
P2-Paint Booth #1	6.88 gal paint/hr	Styrene	0.14 lbs/gal	4.22	
P2-Paint Booth #2	2.24 gal paint/hr	Styrene	0.14 lbs/gal	1.37	
				Total P2 HAP	**9.90**
			new	**Total P1 + P2 HAP**	**19.1**

[a] PTE for Miscellaneous Combustion HAPs for Pouring/Cooling and Shakeout are based on total input of organic materials to the mold making and core making process. Assume that the resin in the cores (2.93 gal/hr) and plastic in the molds (1.0 lbs/hr) are combusted/volatilized during pouring/cooling/shakeout. Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 1: Phenolic Nobake Binder, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.

[b] PTE for HAPs is from CERP Testing May 18, 2001

[c] Emission factors for Emergency Gen. Combustion are from AP-42, Table 3.3-2. Emission factors for Natural Gas Comb. are from AP-42, Table 3.3-2.

[d] Emission Factors for Volatile HAPs in filler putty and paint are provided by source from MSDS sheets.

[d] Emission Factors for Volatile HAPs in the Core Making Resin are from analytical testing of the resin provided by source.

Methodology

HAPs (tons/yr) = Limited Capacity (ton/yr) x Emission Factor (lb HAP/lb input)

P2-Electric Induction Furnaces (PM) [b]	Lead	Manganese	Nickel	Benzene	Total
Emission Factor (lb/ton)	5.58E-03	1.40E-02	8.97E-03	NA	NA
Limited HAPs (ton/yr)	0.246	0.616	0.395	NA	1.26

Limited HAPs (tons/yr) = Limited Capacity (ton/yr) x Emission Factor (lb HAP/lb input)

Appendix A: Emissions Calculations: P2 Expansion HAPs

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

These tables reflect the P2exp HAPs prior to the modification

Current Permit

Metallic HAPs	Capacity	PTE PM	PTE lead	PTE manganese	Total Metallic HAP Before Controls	Total Metallic HAP After Controls
Process:	(tons metal/yr)	(tons/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling [b]	6.00	110.4	0.43	3.42	22.36	0.277
P2exp-Shakeout [b]	6.00	84.10	0.32	2.61		
P2exp-Castings Cleaning and Finishing [b]	6.00	447.1	1.72	13.86		

Misc. Combustion HAPs	Maximum Capacity	Units	Combustion HAP Emission Factor	PTE	Total Misc. Combustion HAP
Process:		(tons/yr)	(lbs HAP/lb input)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.002956 lbs Xylene/lb	0.33	0.54
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.000648 lbs Benzene/lb	0.07	
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.001173 lbs other HAPs/lb	0.13	

[a] PTE for Miscellaneous Combustion HAPs for Pouring/Cooling and Shakeout are based on total input of organic materials to the mold making and core making process. Assume that the resin in the cores (112 ton/yr) and plastic in the molds (0.1 lbs/hr) are combusted/volatilized during pouring/cooling/shakeout. Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 7: Low Nitrogen Furan, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.

[b] PTE for metallic HAPs is based on percentage of HAPs in casting metal. Assume all PM/PM10 emitted from these processes is from metallic castings. Casting metal is 0.385% lead and 3.1% manganese by
There are no HAPs in the furan no bake resinmold wash, release agent, and paint.

Methodology
PTE Metallic HAPs (tons/yr) = PM/PM10 emissions (tons/yr) x Weight % HAPs (%)
PTE Misc. Combustion HAPs (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb HAP/lb input)

These tables reflect the P2exp HAPs after the modification:

Modification (Revised HAPs emission factors)

Metallic HAPs	Maximum (tons metal/hr)	Limited (tons metal/yr)	Lead (lb/ton)	Manganese (lb/ton)	Metallic HAP PTE (lb/ton)	Limited Metallic (lb/ton)
			4.74E-04	1.70E-03	2.64E-03	2.64E-03
P2exp-Pouring/Cooling	8	10200	0.017	0.060	0.093	0.013

Metallic HAPs PTE (tons/yr) = Limited throughput (tons/yr) x Emission factor (lb/ton) x 1 ton/2000 lb
Limited Metallic HAPs (tons/yr) = Limited throughput (tons/yr) x Emission factor (lb/ton) x 1 ton/2000 lb

Misc. Combustion HAPs	Maximum (tons metal/hr)	Limited (tons metal/yr)		HAP emission factor* (lbs/ton metal poured)	Uncontrolled HAPs PTE	Limited HAPs	
P2exp-Pouring/Cooling & P2 Shakeout	8	10200	Benzene	0.818	28.66	4.17	Highest Single HAP
			Toluene	0.106	3.71	0.54	
			Acetaldehyde	0.066	2.31	0.34	
			Phenol	0.044	1.54	0.22	
			Formaldehyde	0.025	0.88	0.13	
			Total HAP	1.08	37.84	5.51	

Methodology
*Emission Factors from CERP study May 18, 2001
PTE Metallic HAPs (tons/yr) = PM/PM10 emissions (tons/yr) x Weight % HAPs (%)

Appendix A: Emissions Calculations: P2 Expansion Foundry Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

This table reflects Before Modification (6 ton/hr)

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2exp-Pouring/Cooling *	6	PM	4.20	FIRE 6.25	110.4							
3-04-003-18 and	(tons metal/hr)	PM10	2.06	FIRE 6.25		54.14						
3-04-003-20		SOx	0.02	FIRE 6.25					0.53			
		NOx	0.01	FIRE 6.25						0.26		
		VOC	0.14	FIRE 6.25							3.68	
	After	PM	0.10	engineering est *			2.63					
	Controls	PM10	0.10	engineering est *				2.63				
				PTE Totals	**110.4**	**54.14**	**2.63**	**2.63**	**0.53**	**0.26**	**3.68**	**0.0**

* The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal. CO emissions from pouring, cooling and shakeout are accounted for on page 2.

Methodology
PTE for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

This table reflects After Modification (8 ton/hr)

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2exp-Pouring/Cooling *	8	PM	4.20	FIRE 6.25	147.2							
3-04-003-18 and	(tons metal/hr)	PM10	2.06	FIRE 6.25		72.18						
3-04-003-20		SOx	0.02	FIRE 6.25					0.70			
		NOx	0.01	FIRE 6.25						0.35		
		VOC	2.27	CERP**							79.54	
	After	PM	0.10	engineering est *			3.50					
	Controls	PM10	0.10	engineering est *				3.50				
				PTE Totals	**147.2**	**72.18**	**3.50**	**3.50**	**0.70**	**0.35**	**79.54**	**0.0**

**Emission Factors from CERP study May 18, 2001

This table reflects Increase

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2exp-Pouring/Cooling *	8				36.8							
3-04-003-18 and	(tons metal/hr)					18.0						
3-04-003-20									0.2			
										0.1		
											75.9	
							0.9					
								0.88				
				PTE Totals	**36.8**	**18.0**	**0.9**	**0.9**	**0.2**	**0.1**	**75.9**	**0.0**

Appendix A: Emissions Calculations: P2 Expansion Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

P2exp units Before Modification

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Control Efficiency %	Potential to Emit					
						Before Controls		After Controls		Before Controls	
						PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2Exp-Pouring/Cooling	6	VOC	0.09	2005 stack test [a]						2.35	
P2-Shakeout	(tons metal/hr)	CO	6.00	[c]							157.7
P2Exp-Mold Dump	6	PM	3.20	FIRE 6.25	99.0%	84.10		0.841			
SCC 3-04-003-31	(tons metal/hr)	PM10	2.24	FIRE 6.25			58.87		0.589		
P2Exp-Furan Mold Sand	10	PM	3.6	FIRE 6.25	99.0%	157.7		1.58			
Reclamation	(tons sand/hr)	PM10	0.54	FIRE 6.25			23.65		0.237		
SCC 3-04-003-50											
P2Exp-Core Mixer	1	PM	3.6	FIRE 6.25	99.0%	946.1		9.46			
	(tons sand/min)	PM10	0.54	FIRE 6.25			141.91		1.419		
		VOC								0	
					PTE Totals	1187.9	224.4	11.9	2.2	2.4	157.7

[a] Stack tests of the pouring/cooling/shakeout in Plant P1 were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. The stack test results are used in calculating the emission factors for VOC for P2exp-Pouring/Cooling.

[b] Tests on the Furan NoBake resin were performed by OCMA

[c] The CO emission factor for pouring, cooling and shakeout is based on the best available information for CO emissions from pouring, cooling and shakeout operations. This represents total emissions from pouring, cooling and shakeout combined.

[d] The catalyst does not contain VOC.

Methodology

PTE for Shakeout/Mold Sand Handling Before Controls (tons/yr) = Maximum Capacity (tons metal or sand/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs
PTE for PM/PM10 for Shakeout/Mold Sand Handling After Controls (tons/yr) = PTE Before Controls (tons/yr) x (1 - Control Efficiency %)
PTE for VOC for Mold Wash and Furan Mold Mixer (tons/yr) = Maximum Capacity (gals/yr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lbs)
PTE for VOC for Furan Mold Mixer (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb VOC/ton) x 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P2 Expansion Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 20-Aug-2012

P2exp units After Modification (revised capacity and emission factors)

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Control Efficiency %	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	Before Controls VOC* (ton/yr)	Before Controls CO (ton/yr)
P2Exp-Pouring/Cooling	8	VOC*	0	*						0	
P2-Shakeout	(tons metal/hr)	CO	6.00	c							210.2
P2Exp-Mold Dump	8	PM	3.20	FIRE 6.25	99.0%	112.13		1.121			
SCC 3-04-003-31	(tons metal/hr)	PM10	2.24	FIRE 6.25			78.49		0.785		
P2Exp-Furan Mold Sand	28	PM	3.6	FIRE 6.25	99.0%	441.5		4.42			
Reclamation	(tons sand/hr)	PM10	0.54	FIRE 6.25			66.23		0.662		
SCC 3-04-003-50											
P2Exp-Core Mixer	1	PM	3.6	FIRE 6.25	99.0%	946.1		9.46			
	(tons sand/min)	PM10	0.54	FIRE 6.25			141.91		1.419		
		VOC**	1.17	**						307.48	
					PTE Totals	1499.7	286.6	15.0	2.9	307.5	210.2

*VOCs are accounted for on P2expPouring/Cooling (P2_exp Foundry page). VOCs will not be emitted in this area since the molds cool for many hours before shakeout.
**VOC emission factor for phenolic urethane no-bake molds (RMT provided for Ohio Cast Metals Association (OCMA) study April 1998)

Increase for P2exp units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Control Efficiency %	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	Before Controls VOC (ton/yr)	Before Controls CO (ton/yr)
P2Exp-Pouring/Cooling						0	0			-2.35	
P2-Shakeout											52.56
P2Exp-Mold Dump					99.0%	28.03		0.28		0	0
SCC 3-04-003-31							19.62		0.20		
P2Exp-Furan Mold Sand					99.0%	283.8		3		0	
Reclamation							42.6		0		0
SCC 3-04-003-50											
P2Exp-Core Mixer					99.0%	0		0			
							0		0		0
										307.48	
					PTE Totals	311.9	62.2	3.1	0.6	305.1	52.6

Total PTE increase of Modification for P2exp units **348.6** **80.2** **381.0** **52.6**

Appendix A: Emissions Calculations: P2 Expansion Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

P2Exp units Before Modification (Current Permit Limits)

Emission Unit	Limited Capacity (tons metal/yr)	Emission Factor PM (lbs/ton)	Emission Factor PM10 (lbs/ton)	Emission Factor VOC (lbs/ton)	Limited PM (ton/yr)	Limited PM10 (ton/yr)	Limited VOC (ton/yr)
P2Exp-Pouring/Cooling	4,927	5.60	3.46	0.14	13.80	8.52	0.34
P2Exp Mold Sand Reclamation & P2exp-Mold Dump	14780	0.87	0.57	None	6.43	4.21	0
P2Exp-Core Mixer	33	3.6	0.54	None	0.06	0.01	0
				Totals	**20.28**	**12.74**	**0.34**
				P2exp-Pre-Finish Station	0.84	0.07	0
				P2exp-Blast Cabinet			0
				P2exp-Core Removal Operation			0
				P2exp-Grinding Station			0
				P2exp-Mold Mixer	0	0	9.73
				P2exp-Mold Wash	0	0	
				Actual to Projeced Acutal Increase	2.46	2.06	3.19
				2008 Modification Total	**23.58**	**14.88**	**13.26**

Methodology
PTE (tons/yr) = Limited Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

P2Exp units After Modification (Change to Permit Limits)

Emission Unit	Limited Capacity (tons metal/yr)	Emission Factor* PM (lbs/ton)	Emission Factor* PM10 (lbs/ton)	Emission Factor* VOC (lbs/ton)	Limited PM (ton/yr)	Limited PM10 (ton/yr)	Limited VOC (ton/yr)
P2Exp-Pouring/Cooling	10,200	2.1	1.60	2.27	10.71	8.16	11.58
P2Exp Mold Sand Reclamation & P2exp-Mold Dump	35700	0.27	0.07	None	4.82	1.25	0.00
P2Exp-Core Mixer	450	3.6	0.54	1.17	0.81	0.12	0.26
				Totals	**16.34**	**9.53**	**11.84**
				P2exp-Mold Mixer	0	0	9.73
				P2exp-Mold Wash	0	0	
				Actual to Projeced Acutal Increase	6.06	4.76	3.23
				2008 Modification Total**	**22.4**	**14.3**	**24.8**
				PSD Significant Level	25	15	40

*Emission factors for P2exp-Pouring/Cooling from FIRE 3-04-003-20
**P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, P2exp-Grinding Station have been removed.

Appendix A: Emissions Calculations: ATPA Analysis for 2008 Modification

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Baseline Actual Emissions with Control Devices
Existing Units at Plant 2

Emission Unit	Actual Emissions (Tons/year)					
	PM	PM10	SO	NOx	VOC	CO
P2-Scrap and Charge Handling	11.86	7.12	0	0	0	0
P2-Ladle Preheater	0.00	0.00	0	0	0	0
P2-Electric Induction Furnaces	5.93	5.93	0	0	0	0
P2-Prefinish Station, Putty Booth, Grinding	1.58	1.58	0	0	0	0
P2-Core Removal	1.28	0.20	0	0	0	0
P2-Shot Blast Machine	0.59	0.59	0	0	0	0
P2-Buffing Booth	0.59	1.38	0	0	0	0
P2-Paint Booths	1.60	1.60	0	0	12.48	0
Total Emissions	**23.43**	**18.40**	**0**	**0**	**12.48**	**0**

Core Sand Handling, Core Machine and Shell Core Machine Butane Torch not used for Furan. Furan core machine used for Furan casting cores. Added Prefinishing-Putty Booth-Grinding, Core Removal, Shot Blast Machne, and Paint Booths.

Projected Actual Emissions with Control Devices
Existing Units at Plant 2

Emission Unit	Actual Emissions (Tons/year)					
	PM	PM10	SO	NOx	VOC	CO
P2-Scrap and Charge Handling	14.93	8.96	0	0	0	0
P2-Ladle Preheater	0.00	0.00	0	0	0	0
P2-Electric Induction Furnaces	7.46	7.46	0	0	0	0
P2-Prefinish Station, Putty Booth, Grinding	1.98	1.98	0	0	0	0
P2-Core Removal	1.61	0.25	0	0	0	0
P2-Shot Blast Machine	0.74	0.74	0	0	0	0
P2-Buffing Booth	0.74	1.74	0	0	0	0
P2-Paint Booths	2.01	2.01	0	0	15.71	0
Total Emissions	**29.49**	**23.15**	**0**	**0**	**15.71**	**0**
Emissions Increase	**6.06**	**4.76**	**0**	**0**	**3.23**	**0**

Appendix A: Emissions Calculations: P1 Foundry Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

P1 Rotary Kiln Dryer has been removed from source

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (units)	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (ton/yr)	PTE Before Controls PM10 (ton/yr)	PTE After Controls PM (ton/yr)	PTE After Controls PM10 (ton/yr)	PTE SOx (ton/yr)	PTE NOx (ton/yr)	PTE VOC (ton/yr)	PTE CO (ton/yr)
Scrap and Charge Handling	12.0	PM	0.60	FIRE 6.25	0	0	31.5		31.5					
P1-Charge	(tons/hr)	PM10	0.36	FIRE 6.25				18.9		18.9				
3-04-003-15	metal		(lb/ton)											
	0.40	PM	7.60	FIRE 6.25	0	0	0.01		0.01					
P1-Ladle Preheater	(MMBTU/hr)	PM10	7.60	FIRE 6.25				0.01		0.01				
1-03-006-03	natural gas	SOx	0.60	FIRE 6.25							0.001			
		NOx	100	FIRE 6.25								0.18		
		VOC	5.50	FIRE 6.25									0.01	
		CO	84.0	FIRE 6.25										0.15
			(lb/MMCF)											
P1-Rotary Kiln Dryer	8.00	PM	7.60	FIRE 6.25	0	0	Kiln Dryer no longer at source							
Natural Gas	(MMBTU/hr)	PM10	7.60	FIRE 6.25										
Gas Combustion Emissions	natural gas	SOx	0.60	FIRE 6.25										
1-03-006-03		NOx	100	FIRE 6.25										
Emission Factor = lb/MMCF		VOC	5.50	FIRE 6.25										
		CO	84.0	FIRE 6.25										
			(lb/MMCF)											
Electric Induction Furnaces	12.0	PM	0.90	FIRE 6.25	11.1%		47.3							
P1-EIF#1 & P1-EIF#2	(tons/hr)	PM10	0.86	FIRE 6.25				45.2						
3-04-003-03	metal		(lbs/ton)											
These furnacess are controlled		PM	0.80	2003 stack test [b]					42.0					
by a single baghouse (Area 1).		PM10	0.80	2003 stack test [b]						42.0				
(HAP Emissions on Page 6)			(lbs/ton)	(after controls)										
P1-Pouring/Cooling c	12.0	PM	4.20	FIRE 6.25	95.1%		221							
3-04-003-18 and 3-04-003-20	(tons/hr)	PM10	2.06	FIRE 6.25				108						
	metal		(lbs/ton)											
		PM	0.10	engineering est. [c]					5.3					
		PM10	0.10	engineering est. [c]						5.3				
			(lbs/ton)											
		SOx	0.02	FIRE 6.25							1.05			
(VOC emissions on page 2)		NOx	0.01	FIRE 6.25								0.53		
(HAP Emissions on Page 6)			(lbs/ton)											
						PTE Totals	**300**	**172**	**78.9**	**66.2**	**1.05**	**0.70**	**0.01**	**0.15**

a These emission factors are provided by the manufacturer of the kiln dryer.
b Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on Sep 2, 2003. The stack test results are used in calculating the emission factors after controls.
c The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal.

Methodology

PTE for Scrap & Charge Handling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Rotary Kiln Dryer (tons/yr) = 3,000 acfm x Emission Factor (gr/dscf) x 1/7000 (lb/gr) x 1/2000 (ton/lbs) x 60 (min/hr) x 8760 (hr/yr)
PTE for VOC for Rotary Kiln Dryer After Controls (tons/yr) = Emission Factor (lbs/hr) x 8760 (hrs/yr) x 1/2000 (ton/lbs)
PTE for PM/PM10 for Elec. Induction Furnace Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Elec. Induction Furnace After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs) x (1-Control Eff%)

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 08/20/12

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (units)	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
Scrap and Charge Handling	12.0	PM	0.60	FIRE 6.25	0	0	31.5		31.5					
P1-Charge	(tons/hr)	PM10	0.36	FIRE 6.25				18.9		18.9				
3-04-003-15	metal		(lb/ton)											
	0.40	PM	7.60	FIRE 6.25	0	0	0.01		0.01					
P1-Ladle Preheater	(MMBTU/hr)	PM10	7.60	FIRE 6.25				0.01		0.01				
1-03-006-03	natural gas	SOx	0.60	FIRE 6.25							0.001			
		NOx	100	FIRE 6.25								0.18		
		VOC	5.50	FIRE 6.25									0.01	
		CO	84.0	FIRE 6.25										0.15
			(lb/MMCF)											
P1-Rotary Kiln Dryer	8.00	PM	7.60	FIRE 6.25	0	0	0.27		0.27					
Natural Gas	(MMBTU/hr)	PM10	7.60	FIRE 6.25				0.27		0.27				
Gas Combustion Emissions	natural gas	SOx	0.60	FIRE 6.25							0.02			
1-03-006-03		NOx	100	FIRE 6.25								3.50		
Emission Factor = lb/MMCF		VOC	5.50	FIRE 6.25									0.19	
		CO	84.0	FIRE 6.25										2.94
			(lb/MMCF)											
Electric Induction Furnaces	12.0	PM	0.90	FIRE 6.25	11.1%		47.3							
P1-EIF#1 & P1-EIF#2	(tons/hr)	PM10	0.86	FIRE 6.25				45.2						
3-04-003-03	metal		(lbs/ton)											
These furnacess are controlled by		PM	0.80	2003 stack test [b]					42.0					
a single baghouse (Area 1).		PM10	0.80	2003 stack test [b]						42.0				
(HAP Emissions on Page 6)			(lbs/ton)	(after controls)										
P1-Pouring/Cooling c	12.0	PM	4.20	FIRE 6.25	95.1%		221							
3-04-003-18 and 3-04-003-20	(tons/hr)	PM10	2.06	FIRE 6.25				108						
	metal		(lbs/ton)											
		PM	0.10	engineering est. [c]					5.3					
		PM10	0.10	engineering est. [c]						5.3				
			(lbs/ton)											
		SOx	0.02	FIRE 6.25							1.05			
(VOC emissions on page 2)		NOx	0.01	FIRE 6.25								0.53		
(HAP Emissions on Page 6)			(lbs/ton)											
						PTE Totals	**300**	**173**	**79.1**	**66.5**	**1.07**	**4.20**	**0.20**	**3.09**

a These emission factors are provided by the manufacturer of the kiln dryer.
b Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after c
c The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal.

Methodology
PTE for Scrap & Charge Handling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Rotary Kiln Dryer (tons/yr) = 3,000 acfm x Emission Factor (gr/dscf) x 1/7000 (lb/gr) x 1/2000 (ton/lbs) x 60 (min/hr) x 8760 (hr/yr)
PTE for VOC for Rotary Kiln Dryer After Controls (tons/yr) = Emission Factor (lbs/hr) x 8760 (hrs/yr) x 1/2000 (ton/lbs)
PTE for PM/PM10 for Elec. Induction Furnace Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Elec. Induction Furnace After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs) x (1-Control Eff%)

Appendix A: Emissions Calculations: P1 Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P1-Shakeout &	12.00	PM	3.20	FIRE 6.25			168							
P1-Mold Sand Handling	(tons/hr)	PM10	2.24	FIRE 6.25				118						
3-04-003-31	metal		(lbs/ton)											
These two operations are controlled	and		before controls		94.1%									
by a single baghouse (Area 2).	55.00	PM	0.33	2003 stack test [a]					17.34					
	(tons/hr)	PM10	0.33	2003 stack test [a]						17.34				
	sand		(lbs/ton)											
			after controls											
P1-Pouring/Cooling	12.00	VOC	0.09	2005 stack test									4.7	
P1-Shakeout	(tons/hr)													
	metal		(lbs/ton)											
P1-Core Making	10.0	VOC	0.0015	Foseco [c]									0.07	
	(lbs/hour)		(lbVOC/lb resin)											
	resin													
	0.75	VOC	4.13	MSDS									13.6	
	(gals/hr)		(lbVOC/gal)											
	release agent 1			Assume all VOC volatilizes and is released										
	0.3	VOC	6.67	MSDS									8.76	
	(gals/hr)		(lbVOC/gal)											
	release agent 2			Assume all VOC volatilizes and is released										
P1-Molding Machine	0.60	VOC	0.19	MSDS	0	0							0.50	
3-04-003-98	lbs/hour		lbs VOC/lb plastic											
	plastic		Assume all VOC volatilizes and is released											
	0.07	VOC	4.40	MSDS									1.35	
	gals/hour		(lbVOC/gal)											
	release agent II		Assume all VOC volatilizes and is released											
	5.20	VOC	0.17	MSDS									3.87	
	gals/hour		(lbVOC/gal)											
	mold wash		Assume all VOC volatilizes and is released											
P1-Mold Dryer #1	0.0045	PM	7.60	FIRE 6.25	0	0	5.53E-04		5.53E-04					
P1-Mold Dryer #2	0.0121	PM10	7.60	FIRE 6.25				5.53E-04		5.53E-04				
1-03-006-03	(MMBTU/hr)	SOx	0.60	FIRE 6.25							4.37E-05			
	natural gas	NOx	100	FIRE 6.25								7.28E-03		
		VOC	5.50	FIRE 6.25									4.00E-04	
		CO	84.0	FIRE 6.25										6.12E-03
			(lb/MMCF)											
P1-Core Sand Handling	0.125	PM	3.60	FIRE 6.25	0	0	1.97		1.97					
3-04-003-50	(tons/hr)	PM10	0.54	FIRE 6.25				0.30		0.30				
	sand		(lb/ton)											
Core Machine Butane Torch	0.144	PM	0.60	FIRE 6.25	0	0	3.78E-04		3.78E-04					
P1-Butane Torch	(gallons/hour)	PM10	0.60	FIRE 6.25				3.78E-04		3.78E-04				
1-03-010-01		SOx	0.09	FIRE 6.25							5.68E-05			
		NOx	21.0	FIRE 6.25								1.32E-02		
		VOC	0.40	FIRE 6.25									2.52E-04	
		CO	3.60	FIRE 6.25										2.27E-03
			(lb/1,000 gals)											
					PTE Totals		**170.2**	**118.0**	**19.32**	**17.64**	**0.00**	**0.02**	**32.8**	**0.01**

a Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after controls.
b Stack tests of the pouring/cooling/shakeout were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. The stack test results are used in calculating the emission factors for VOC.
c VOC emission factor for core making is from a study performed by Tecknicon LLC on the Foseco Metallurgical resin/CO_2 binder system.

Methodology

PTE for PM/PM10 for Shakeout/Mold Sand Handling Before Controls (tons/yr) = Maximum Capacity (tons sand/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Shakeout/Mold Sand Handling After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for VOC for Molding Machine and Core Machine (tons/yr) = Maximum Capacity (gal/hr) x VOC Content (lb VOC/gal) x 8760 (hr/yr) x 1/2000 (ton/lbs)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Core Sand Handling (tons/yr) = Maximum Capacity (tons sand/hr) x Emission Factor (lb/ton) x 8760 (hr/yr) x 1/2000 (ton/lbs)
PTE for Shell Core Machine Butane Torch (tons/yr) = Maximum Capacity (gal/hr) x Emission Factor (lb/1000 gal) x 1/1000 * 8760 (hr/yr) * 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P1 Finish Prep

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P1-Shot Blast Machine #1 3-04-003-40	12.00 (tons/hr) metal	PM	17.00	FIRE 6.25	99.82%		894							
		PM10	1.70 (lbs/ton)	FIRE 6.25				89.4						
This emission unit is controlled by a single baghouse (Area 4).		PM	0.030	2003 stack test [a]					1.58					
		PM10	0.030 lbs/ton	2003 stack test [a] (after controls)						1.58				
P1-Shot Blast Machine #2 3-04-003-40	20.00 (tons/hr) metal	PM	17.0	FIRE 6.25	99%		1489							
		PM10	1.70 (lbs/ton)	FIRE 6.25				149						
This emission unit is controlled by a single baghouse (Area 6).	20.00 (tons/hr) metal	Airflow Rate (scfm)		8,350					1.57	1.57				
		Outlet Grain Loading (gr/scf)		0.005										
P1-Core Removal Operation 3-04-003-50 and P1-Pre-Finish Station 3-04-003-60 and Coarse Grinding Stations #1- #5 P1-Grinding Stations #1- #5 3-04-003-40	0.125 (tons/hr) sand	PM	3.60	FIRE 6.25	99.5%		1.97							
		PM10	0.54 (lb/ton)	FIRE 6.25				0.30						
	12.00 (tons/hr) metal each	PM	0.0045	FIRE 6.25			0.24							
		PM10	0.0045 (lb/ton)	FIRE 6.25				0.24						
		PM	17.0	FIRE 6.25			894							
		PM10	1.70 (lb/ton)	FIRE 6.25				89.4						
These three emission units are controlled by a single baghouse (Area 5).		PM	0.090	2003 stack test [a]					4.73					
		PM10	0.090 (lbs/ton)	2003 stack test [a] (after controls)						4.73				
P1-Filler/Putty Application	1.75 (gals/hr)	VOC	0.19 (lb VOC/gal)	MSDS	0	0							1.46	
					PTE Totals		**3278**	**328.2**	**7.87**	**7.87**	**0.00**	**0.00**	**1.46**	**0.00**

a Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors

Methodology

PTE for PM/PM10 for Shot Blast Machine Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Shot Blast Machine After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Shot Blast Machine After Controls (tons/yr) = Air Flow Rate (scfm) x Outlet Grain Loading (gr/scf) x 1/7,000 (lb/gr) x 8760 (hrs/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Core Removal, Prefinish and Grinding Station (before controls) (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Core Removal, Prefinish and Grinding Station (after controls) (tons/yr) = 8760 (hr/yr) x Emission Factor (lb/hr) x 1/2,000 (ton/lbs)
PTE for VOC for Filler/Putty (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)

Appendix A: Emissions Calculations: P1 Painting and Finishing

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Transfer Efficiency %	Control Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P1-Paint Booth #2	5.76	VOC	0.39	MSDS									9.8	
White Primer	(gals/hr)		(lb VOC/gal)											
4-02-006-10			8.00		70%	85%								
	9.0	PM	(lb solids/gal)				60.6		9.08					
Primer is 88.9% solids	density (lb/gal)	PM10						60.6		9.08				
P1-Paint Booth #3	1.43	VOC	1.70	MSDS									10.6	
Yellow Primer	(gals/hr)		(lb VOC/gal)											
4-02-006-10			5.08		70%	85%								
	10.16	PM	(lb solids/gal)				9.55		1.43					
Primer is 50% Solids	density (lb/gal)	PM10						9.55		1.43				
P1-Final Inspection Paint	0.50	VOC	1.70	MSDS									3.72	
Yellow Primer	(gals/hr)		(lb VOC/gal)											
4-02-006-10			5.08		70%	85%								
	10.2	PM	(lb solids/gal)				3.34		0.50					
Primer is 50% Solids	density (lb/gal)	PM10						3.34		0.50				
P1-Paint Booth #2 Dryer	0.00165	PM	7.60	FIRE 6.25	NA	NA	1.10E-04		1.10E-04					
P1-Paint Booth #3 Dryer	0.00165	PM10	7.60	FIRE 6.25				1.10E-04		1.10E-04				
1-03-006-03		SOx	0.60	FIRE 6.25							8.67E-06			
	(MMBTU/hr)	NOx	100	FIRE 6.25								1.45E-03		
	natural gas	VOC	5.50	FIRE 6.25									7.95E-05	
		CO	84.0	FIRE 6.25										1.21E-03
			(lbs/MMCF)											
P1-Buffing Station		PM	0.0045	FIRE 6.25			0.24							
3-04-003-60		PM10	0.0045	FIRE 6.25				0.2						
	12.00		(lbs/ton)		NA									
This emission unit is	(tons/hr)	PM	0.080	2003 stack test					4.20					
controlled by a single	metal	PM10	0.080	2003 stack test						4.20				
baghouse (Area 3).			(lbs/ton)	(after controls)										
P1-Final Inspection Buffing	12.00	PM	0.0045	FIRE 6.25			0.24		0.24					
3-04-003-60	(tons/hr)	PM10	0.0045	FIRE 6.25				0.24		0.24				
	metal		(lbs/ton)											
					PTE Totals		**73.9**	**73.9**	**15.5**	**15.5**	**0.00**	**0.00**	**24.2**	**0.00**

a Emission Inventory Improvement Program, Volume II, Chapter 14 (7/0
c AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. (AP-42 Supplement D 7/98)
Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after controls.

Methodology
PTE for VOC for Painting (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)
PTE for PM/PM10 for Painting Before Controls (ton/yr) = Max. Capacity (gal/hr) x density (lb/gal) x % Solids x 8760 (hr/yr) x 1/2000 (ton/lb) x (1-Transfer Efficiency(%))
PTE for PM/PM10 for Painting After Controls (ton/yr) = Max. Capacity (gal/hr) x density (lb/gal) x % Solids x 8760 (hr/yr) x 1/2000 (ton/lb) x (1-Transfer Efficiency(%)) x (1- Control Efficiency(%))
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Buffing Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2000 (ton/lbs)
PTE for PM/PM10 for Buffing After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: Insignificant Activities

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls		PTE After Controls		PTE			
							PM (Tons/Year)	PM10 (Tons/Year)	PM (Tons/Year)	PM10 (Tons/Year)	SOx (Tons/Year)	NOx (Tons/Year)	VOC (Tons/Year)	CO (Tons/Year)
P1-Emergency Generator	8.8	PM	0.31	FIRE 6.25	0	0	0.09		0.09					
2-02-001-02	(gals/hour)	PM10	0.31	FIRE 6.25				0.09		0.09				
	diesel #2	SOx	0.29	FIRE 6.25							0.09			
	1.20	NOx	4.41	FIRE 6.25								1.33		
	(MMBtu/hr)	VOC	0.36	FIRE 6.25									0.11	
		CO	0.95	FIRE 6.25										0.29
			(lbs/MMBTU)											
Air Makeup Unit 19A	5.28	PM	7.60	FIRE 6.25	0	0	0.59		0.59					
Air Makeup Unit 19B	5.28	PM10	7.60	FIRE 6.25				0.59		0.59				
Air Makeup Unit 19C	5.28	SOx	0.60	FIRE 6.25							0.05			
Water Heater 19D	0.20	NOx	100	FIRE 6.25								7.72		
Natural Gas Heater 19E	0.12	VOC	5.50	FIRE 6.25									0.42	
Natural Gas Heater 19F	0.12	CO	84.0	FIRE 6.25										6.49
Natural Gas Heater 19G	0.45		(lbs/MMCF)											
Natural Gas Heater 19H	0.45													
Natural Gas Heater 19I	0.45													
total	17.6													
	(MMBtu/hr)													
P1-Maintenance Parts Washing	0.002	VOC	0.392	MSDS	0	0							2.94E-03	
	(gallons/hour)		(lbVOC/gal)											
					PTE Totals		**0.68**	**0.68**	**0.68**	**0.68**	**0.13**	**9.0**	**0.54**	**6.77**

Diesel fuel has heat input value of 19,300 Btu/lb and density of 7.08 lbs/gallon.
c AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. (AP-42 Supplement D 7/98)
g AP-42, Chapter 3.3 - Gasoline and Diesel Industrial Engines, Table 3.3-1. (10/96)

Methodology
PTE for Emergency Generator (tons/yr) = Maximum Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1/2,000 (ton/lbs) x 8760 (hr/yr)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for VOC for Parts Washing (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)

Appendix A: Emissions Calculations: P2 Foundry Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: #######

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (units)	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
Metal and Charge Handling	18.0	PM	0.60	FIRE 6.25	0	0	47.3		47.3					
P2-Charge	(tons/hr)	PM10	0.36	FIRE 6.25				28.4		28.4				
3-04-003-15	metal		(lb/ton)											
Ladle Preheater	1.00	PM	7.60	FIRE 6.25	0	0	0.03		0.03					
P2-Ladle Preheater	(MMBTU/hr)	PM10	7.60	FIRE 6.25				0.03		0.03				
1-03-006-03	natural gas	SOx	0.60	FIRE 6.25							0.003			
		NOx	100	FIRE 6.25								0.44		
		VOC	5.50	FIRE 6.25									0.02	
		CO	84.0	FIRE 6.25										0.37
			(lbs/MMCF)											
Electric Induction Furnaces	18.0	PM	0.90	FIRE 6.25			71.0							
P2-EIF#1, P2-EIF#2 and P2-EIF#3	(tons/hr)	PM10	0.86	FIRE 6.25				67.8						
3-04-003-03	metal		(lbs/ton)											
Particulate emissions are		PM	0.75	2003 stack test [a]	16.7%				59.1					
controlled by a baghouse (#1)		PM10	0.75	2003 stack test [a]						59.1				
(HAP Emissions on Page 12)			(lbs/ton)	(after controls)										
P2-Pouring/Cooling b	18.0	PM	4.20	FIRE 6.25			331							
3-04-003-18 and 3-04-003-20	(tons/hr)	PM10	2.06	FIRE 6.25				162						
	metal		(lbs/ton)											
		PM	0.10	engineering est. [b]	40.0%				7.88					
		PM10	0.10	engineering est. [b]						7.88				
			(lbs/ton)											
		SOx	0.02	FIRE 6.25							1.58			
(VOC Emissions on page 8)		NOx	0.01	FIRE 6.25								0.79		
(HAP Emissions on Page 12)			(lbs/ton)											
						PTE Totals	**449**	**259**	**114.4**	**95.4**	**1.58**	**1.23**	**0.02**	**0.37**

h The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal.
Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after controls.

Methodology
PTE for Scrap & Charge Handling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Rotary Kiln Dryer (tons/yr) = 3,000 acfm x Emission Factor (gr/dscf) x 1/7000 (lb/gr) x 1/2000 (ton/lbs) x 60 (min/hr) x 8760 (hr/yr)
PTE for PM/PM10 for Elec. Induction Furnace Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Elec. Induction Furnace After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs) x (1-Control Eff%)

Appendix A: Emissions Calculations: P2 Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P2-Shakeout &	18.0	PM	3.20	FIRE 6.25			252							
P2-Mold Sand Handling	(tons metal/hr)	PM10	2.24	FIRE 6.25				177						
3-04-003-31			(lbs/ton)											
These two operations are controlled			before controls		89.7%									
by a single baghouse (#2).		PM	0.33	2003 stack test [a]					26.0					
	66.0	PM10	0.33	2003 stack test [a]						26.0				
	(tons sand/hr)		(lbs/ton)	(after controls)										
P2-Pouring/Cooling	18.00	VOC	0.09	2005 stack test									7.1	
P2-Shakeout	(tons/hr)													
	metal		(lbs/ton)											
P2-Core Making	22.5	VOC	0.0015	Foseco [c]									0.15	
	(lbs/hour)		(lbVOC/lb resin)											
	resin													
	1.25	VOC	4.13	MSDS									22.6	
	gals/hour		(lbVOC/gal)											
	release agent 1			Assume all VOC volatilizes and is released										
	0.5	VOC	6.67	MSDS									14.6	
	gals/hour		(lbVOC/gal)											
	release agent 2			Assume all VOC volatilizes and is released										
P2-Molding Machine	1.00	VOC	0.19	MSDS	0	0							0.83	
3-04-003-98	lbs/hour		lbs VOC/lb plastic											
	plastic		Assume all VOC volatilizes and is released											
	0.228	VOC	4.40	MSDS									4.40	
	gals/hour		(lbVOC/gal)											
	release agent II		Assume all VOC volatilizes and is released											
	7.10	VOC	0.17	MSDS									5.29	
	gals/hour		(lbVOC/gal)											
	mold wash		Assume all VOC volatilizes and is released											
P2-Mold Dryer #1	0.0011	PM	7.60	FIRE 6.25	0	0	7.52E-05		7.52E-05					
P2-Mold Dryer #2	0.0011	PM10	7.60	FIRE 6.25				7.52E-05		7.52E-05				
1-03-006-03	(MMBTU/hr)	SOx	0.60	FIRE 6.25							5.94E-06			
	natural gas	NOx	100.00	FIRE 6.25								9.90E-04		
		VOC	5.50	FIRE 6.25									5.44E-05	
		CO	84.00	FIRE 6.25										8.31E-04
			(lb/MMCF)											
P2-Core Sand Handling	0.375	PM	3.60	FIRE 6.25	0	0	5.91		5.91					
3-04-003-50	(tons/hr)	PM10	0.54	FIRE 6.25				0.89		0.89				
	sand		(lb/ton)											
Core Machine Butane Torch	0.36	PM	0.60	FIRE 6.25	0	0	9.46E-04		9.46E-04					
P2-Butane Torch	(gallons/hour)	PM10	0.60	FIRE 6.25				9.46E-04		9.46E-04				
1-03-010-01		SOx	0.09	FIRE 6.25							1.42E-04			
		NOx	21.0	FIRE 6.25								3.31E-02		
		VOC	0.40	FIRE 6.25									6.31E-04	
		CO	3.60	FIRE 6.25										5.68E-03
			(lbs/1,000 gals)											
					PTE Totals		**258.2**	**177.5**	**31.93**	**26.91**	**0.00**	**0.03**	**55.0**	**0.01**

a Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after controls.
b Stack tests of the pouring/cooling/shakeout were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. The stack test results are used in calculating the emission factors for VOC.
c VOC emission factor for core making is from a study performed by Tecknicon LLC on the Foseco Metallurgical resin/CO_2 binder system.

Methodology
PTE for PM/PM10 for Shakeout/Mold Sand Handling Before Controls (tons/yr) = Maximum Capacity (tons sand/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Shakeout/Mold Sand Handling After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for VOC for Molding Machine and Core Machine (tons/yr) = Maximum Capacity (gal/hr) x VOC Content (lb VOC/gal) x 8760 (hr/yr) x 1/2000 (ton/lbs)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Core Sand Handling (tons/yr) = Maximum Capacity (tons sand/hr) x Emission Factor (lb/ton) x 8760 (hr/yr) x 1/2000 (ton/lbs)
PTE for Shell Core Machine Butane Torch (tons/yr) = Maximum Capacity (gal/hr) x Emission Factor (lb/1000 gal) x 1/1000 * 8760 (hr/yr) * 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P2 Finish Prep

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P2-Shot Blast Machine	18.0	PM	17.0	FIRE 6.25	98.2%		1340							
3-04-003-40	(tons/hr)	PM10	1.70	FIRE 6.25				134.0						
	metal		(lbs/ton)											
This emission unit is controlled		PM	0.030	2003 stack test					2.37					
by a single baghouse (Area 3).		PM10	0.030	2003 stack test						2.37				
			lbs/ton	(after controls)										
P2-Pre-Finish Station		PM	0.0045	FIRE 6.25	NA		0.35							
3-04-003-60	18.0	PM10	0.0045	FIRE 6.25				0.35						
and	(tons/hr)		(lbs/ton)											
P2-Putty Booth	metal	PM	0.0045	FIRE 6.25			0.35							
3-04-003-60	each	PM10	0.0045	FIRE 6.25				0.35						
and			(lbs/ton)											
Coarse Grinding Stations #1- #5		PM	17.00	FIRE 6.25			1340							
P2-Grinding Stations #1- #5		PM10	1.70	FIRE 6.25				134						
3-04-003-40			(lbs/ton)											
These emission units are		PM	0.060	2003 stack test					4.73					
controlled by a single baghouse		PM10	0.060	2003 stack test						4.73				
(#4)			(lbs/ton)	(after controls)										
P2-Core Removal Operation	0.325	PM	3.60	FIRE 6.25	0	0	5.12		5.12					
	(tons/hr)	PM10	0.54	FIRE 6.25				0.77		0.77				
3-04-003-60	sand		(lbs/ton)											
P2-Filler/Putty Application	1.60	VOC	0.19	MSDS	0	0							1.33	
	(gals/hr)		(lb VOC/gal)											
					PTE Totals		**2686**	**269.5**	**12.22**	**7.86**	**0.00**	**0.00**	**1.33**	**0.00**

b Emission Inventory Improvement Program, Volume II, Chapter 14. (7/01)
e AP-42, Chapter 12.10 - Gray Iron Foundries, Table 12.10-7. (1/95)
Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after controls.

Methodology
PTE for PM/PM10 for Shot Blast Machine Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Shot Blast Machine After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Core Removal, Prefinish and Grinding Station (before controls) (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)
PTE for PM/PM10 for Core Removal, Prefinish and Grinding Station (after controls) (tons/yr) = 8760 (hr/yr) x Emission Factor (lb/hr) x 1/2,000 (ton/lbs)
PTE for VOC for Filler/Putty (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)

Appendix A: Emissions Calculations: P2 Painting and Finishing

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Transfer Efficiency %	Control Efficiency %	PTE Before Controls PM (Tons/Year)	PTE Before Controls PM10 (Tons/Year)	PTE After Controls PM (Tons/Year)	PTE After Controls PM10 (Tons/Year)	PTE SOx (Tons/Year)	PTE NOx (Tons/Year)	PTE VOC (Tons/Year)	PTE CO (Tons/Year)
P2-Paint Booth #1	5.25	VOC	0.39	MSDS									9.0	
White Primer	(gals/hr)		(lb VOC/gal)											
4-02-006-10			8.00	MSDS	70%	85%								
	9.0	PM	(lb solids/gal)				55.2		8.28					
Primer is 88.9% solids	density (lb/gal)	PM10						55.2		8.28				
P2-Paint Booth #2	2.24	VOC	1.70	MSDS									16.7	
Yellow Primer	(gals/hr)		(lb VOC/gal)											
4-02-006-10		PM	5.08	MSDS	70%	85%								
	10.2	PM10	(lb solids/gal)				15.0		2.24					
Primer is 50% solids	density (lb/gal)							15.0		2.24				
P2-Paint Booth #1 Dryer	0.00165	PM	7.60	FIRE 6.25	NA	NA	1.10E-04		1.10E-04					
P2-Paint Booth #2 Dryer	0.00165	PM10	7.60	FIRE 6.25				1.10E-04		1.10E-04				
		SOx	0.60	FIRE 6.25							8.67E-06			
1-03-006-03	(MMBTU/hr)	NOx	100	FIRE 6.25								1.45E-03		
	natural gas	VOC	5.50	FIRE 6.25									7.95E-05	
		CO	84.0	FIRE 6.25										1.21E-03
			(lbs/MMCF)											
P2-Buffing Booth		PM	0.0045	FIRE 6.25			0.35							
3-04-003-60	18.0	PM10	0.0045	FIRE 6.25				0.35						
	(tons/hr)		(lbs/ton)		NA									
This emission unit is	metal	PM	0.060	2003 stack test					4.73					
controlled by a single		PM10	0.060	2003 stack test						4.73				
baghouse (#5).			(lbs/ton)	(after controls)										
					PTE Totals		**70.5**	**70.5**	**15.3**	**15.3**	**0.00**	**0.00**	**25.6**	**0.00**

a Emission Inventory Improvement Program, Volume II, Chapter 14 (7/01)
c AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. (AP-42 Supplement D 7/98)
Stack tests were conducted at the source on April 28 - May 1, 2003 and August 13, 2003 and the results were accepted by IDEM on September 2, 2003. The stack test results are used in calculating the emission factors after

Methodology
PTE for VOC for Painting (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)
PTE for PM/PM10 for Painting Before Controls (ton/yr) = Max. Capacity (gal/hr) x density (lb/gal) x % Solids x 8760 (hr/yr) x 1/2000 (ton/lb) x (1-Transfer Efficiency(%))
PTE for PM/PM10 for Painting After Controls (ton/yr) = Max. Capacity (gal/hr) x density (lb/gal) x % Solids x 8760 (hr/yr) x 1/2000 (ton/lb) x (1-Transfer Efficiency(%)) x (1- Control Efficiency(%))
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for PM/PM10 for Buffing Before Controls (tons/yr) = Maximum Capacity (tons metal/hr) x 8760 (hr/yr) x Emission Factor (lb/ton) x 1/2000 (ton/lbs)
PTE for PM/PM10 for Buffing After Controls (tons/yr) = Emission Factor (lb/hr) x 8760 (hr/yr) x 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P2 Insignificant Activities

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Control Efficiency %	Capture Efficiency %	PTE Before Controls		PTE After Controls		PTE			
							PM (Tons/Year)	PM10 (Tons/Year)	PM (Tons/Year)	PM10 (Tons/Year)	SOx (Tons/Year)	NOx (Tons/Year)	VOC (Tons/Year)	CO (Tons/Year)
P2-Emergency Generator	11.3	PM	0.31	FIRE 6.25	0	0	0.12		0.12					
2-02-001-02	(gals/hour)	PM10	0.31	FIRE 6.25				0.12		0.12				
	diesel #2	SOx	0.29	FIRE 6.25							0.11			
	1.54	NOx	4.41	FIRE 6.25								1.70		
	(MMBtu/hr)	VOC	0.36	FIRE 6.25									0.14	
		CO	0.95	FIRE 6.25										0.37
fuel input			(lbs/MMBtu)											
P2-Air Makeup Unit#1 through	34.72	PM	7.60	FIRE 6.25	0	0	1.43		1.43					
P2-Air Makeup Unit#8		PM10	7.60	FIRE 6.25				1.43		1.43				
		SOx	0.60	FIRE 6.25							0.11			
P2-Water Heater #1 and	0.40	NOx	100	FIRE 6.25								18.86		
P2-Water Heater #2		VOC	5.50	FIRE 6.25									1.04	
		CO	84.0	FIRE 6.25										15.85
P2-Space Heater #1 through	7.95		(lbs/MMCF)											
P2-Space Heater #10														
Total	43.1 (MMBtu/hr)													
P2-Maintenance Parts Washing	0.002 (gallons/hour)	VOC	0.392 (lbVOC/gal)	MSDS	0	0							2.94E-03	
					PTE Totals		**1.55**	**1.55**	**1.55**	**1.55**	**0.23**	**20.6**	**1.18**	**16.21**

Diesel fuel has heat input value of 19,300 Btu/lb and density of 7.08 lbs/gallon.
c AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. (AP-42 Supplement D 7/98)
g AP-42, Chapter 3.3 - Gasoline and Diesel Industrial Engines, Table 3.3-1. (10/96)

2.4616

Methodology
PTE for Emergency Generator (tons/yr) = Maximum Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1/2,000 (ton/lbs) x 8760 (hr/yr)
PTE for Natural Gas-fueled facilities (tons/yr) = Max. Capacity (MMBtu/hr) x Emission Factor ((lb/MMCF) x 8760 (hr/yr) x 1/2000 (ton/lb) x 1/1000 (MMCF/MMBtu)
PTE for VOC for Parts Washing (tons/yr) = Max. Capacity (gal/hr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lb) x 8760 (hr/yr)

Appendix A: Emissions Calculations: P2 Expansion Foundry Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2exp-Pouring/Cooling *	6.00	PM	4.20	FIRE 6.25	110.4							
3-04-003-18 and	(tons metal/hr)	PM10	2.06	FIRE 6.25		54.14						
3-04-003-20		SOx	0.02	FIRE 6.25					0.53			
		NOx	0.01	FIRE 6.25						0.26		
		VOC	0.14	FIRE 6.25							3.68	
	After	PM	0.10	engineering est *			2.63					
	Controls	PM10	0.10	engineering est *				2.63				
				PTE Totals	**110.4**	**54.14**	**2.63**	**2.63**	**0.53**	**0.26**	**3.68**	**0.0**

* The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal. CO emissions from pouring, cooling and shakeout are accounted for on page 2.

Methodology

PTE for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

Appendix A: Emissions Calculations: P2 Expansion Molding Operations

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Overall Control Efficiency %	Potential to Emit: Before Controls PM (ton/yr)	Before Controls PM10 (ton/yr)	After Controls PM (ton/yr)	After Controls PM10 (ton/yr)	SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
P2Exp-Mold Dump SCC 3-04-003-31	6.00 (tons metal/hr)	PM PM10	3.20 2.24 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	84.10	58.87	0.841	0.589				
P2Exp-Pouring/Cooling P2-Shakeout	6.00 (tons metal/hr)	VOC CO	0.09 6.00 (lbs/ton)	2005 stack test [a] [c]								2.35	157.7
P2Exp-Furan Mold Sand Reclamation SCC 3-04-003-50	10.00 (tons sand/hr)	PM PM10	3.6 0.54 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	157.7	23.65	1.58	0.237				
P2Exp-Mold Wash	1,638 gals/yr	VOC	6.56 (lbVOC/gal)	MSDS Assume all VOC volatilizes and is released								5.37	
P2Exp- Furan Mold Mixer 3-04-003-98	112 tons/yr resin	VOC	0.72 lb/ton	OCMA test [b]								0.04	
	33.6 tons/yr catalyst	VOC	0.00 lb/ton	MSDS [d]								0.00	
	390 gals/yr release agent	VOC	5.58 (lb VOC/gal) Assume all VOC volatilizes and is released	MSDS								1.09	
					PTE Totals	**241.8**	**82.52**	**2.42**	**0.83**	**0.00**	**0.00**	**8.85**	**157.7**

[a] Stack tests of the pouring/cooling/shakeout in Plant P1 were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. The stack test results are used in calculating the emission factors for VOC for P2exp-Pouring/Cooling.
[b] Tests on the Furan NoBake resin were performed by OCMA
[c] The CO emission factor for pouring, cooling and shakeout is based on the best available information for CO emissions from pouring, cooling and shakeout operations. This represents total emissions from pouring, cooling and shakeout combined.
[d] The catalyst does not contain VOC.

Methodology
PTE for Shakeout/Mold Sand Handling Before Controls (tons/yr) = Maximum Capacity (tons metal or sand/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs
PTE for PM/PM10 for Shakeout/Mold Sand Handling After Controls (tons/yr) = PTE Before Controls (tons/yr) x (1 - Control Efficiency %)
PTE for VOC for Mold Wash and Furan Mold Mixer (tons/yr) = Maximum Capacity (gals/yr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lbs)
PTE for VOC for Furan Mold Mixer (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb VOC/ton) x 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P2 Expansion Finish Prep

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Overall Control Efficiency %	PTE Before Controls		PTE After Controls	
						PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)
P2exp-Blast Cabinet 3-04-003-40	6.00 (tons/hr) metal	PM PM10	17.0 1.70 (lbs/ton)	AP 42 AP 42	99.0%	446.8	44.68	4.47	0.447
P2exp-Pre-Finish Station 3-04-003-60	6.00 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.12	0.12	0.0012	0.0012
P2exp-Core Removal 3-04-003-60	6.00 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.12	0.12	0.0012	0.0012
P2exp-Coarse Grinding 3-04-003-60	6.00 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.12	0.12	0.0012	0.0012
					PTE Totals	**447.1**	**45.03**	**4.47**	**0.45**

Emission Factor are from AP-42, Chapter 12.10 - Gray Iron Foundries, Table 12.10-7 (1/95) and FIRE 6.25.

Methodology
PTE for PM/PM10 Before Controls (tons/yr) = Maximum Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs
PTE for PM/PM10 After Controls (tons/yr) = PTE Before Controls (tons/yr) x (1 - Control Efficiency %)

Appendix A: Emissions Calculations: P2 Expansion Painting and Finishing

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

							Potential to Emit				
							Before Controls		After Controls		
Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/gal)	Source of Emission Factor	Transfer Efficiency %	Control Efficiency %	PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	VOC (ton/yr)
P2exp-Paint Booth	1,560	VOC	2.00	MSDS							1.56
Yellow Primer	(gals/yr)										
4-02-006-10					75%	80%					
	10.2	PM	5.08	MSDS			0.99		0.20		
Primer is 50% solids	density (lb/gal)	PM10	5.08					0.99		0.20	
					PTE Totals		**0.99**	**0.99**	**0.20**	**0.20**	**1.56**

Methodology

PTE VOC for Painting (tons/yr) = Max. Capacity (gal/yr) x Emission Factor (lb VOC/gal) x 1 ton/2,000 lbs

PTE for PM/PM10 for Painting Before Controls (ton/yr) = Max. Capacity (gal/yr) x density (lb/gal) x Emission Factor (lbs/gal) x 1 ton/2,000 lbs x (1 - Transfer Efficiency(%))

PTE for PM/PM10 for Painting After Controls (ton/yr) = PTE for PM/PM10 for Painting Before Controls (ton/yr) x (1- Control Efficiency(%))

Appendix A: Emissions Calculations: P2 Expansion HAPs

Company Name: North Vernon Industry Corporation
Address: 3750 4th Street, North Vernon, IN 47265
Permit No: SSM 079-32218-00018 and SPM 079-32661-00018
Reviewer: Heath Hartley
Date: 8/20/2012

Existing Units

Metallic HAPs	Capacity	PTE PM	PTE lead	PTE manganese	Total Metallic HAP Before Controls	Total Metallic HAP After Controls
Process:	(tons metal/yr)	(tons/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling [b]	6.00	110.4	0.42	3.42	22.36	0.277
P2exp-Shakeout [b]	6.00	84.10	0.32	2.61		
P2exp-Castings Cleaning and Finishing [b]	6.00	447.1	1.72	13.86		

Misc. Combustion HAPs	Maximum Capacity	Units	Combustion HAP Emission Factor	PTE	Total Misc. Combustion HAP
Process:		(tons/yr)	(lbs HAP/lb input)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.002956 lbs Xylene/lb	0.33	0.54
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.000648 lbs Benzene/lb	0.07	
P2exp-Pouring/Cooling & P2 Shakeout[a]	112	(tons resin and plastic/yr)	0.001173 lbs other HAPs/lb	0.13	

[a] PTE for Miscellaneous Combustion HAPs for Pouring/Cooling and Shakeout are based on total input of organic materials to the mold making and core making process. Assume that the resin in the cores (112 ton/yr) and plastic in the molds (0.1 lbs/hr) are combusted/volatilized during pouring/cooling/shakeout. Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 7: Low Nitrogen Furan, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.
[b] PTE for metallic HAPs is based on percentage of HAPs in casting metal. Assume all PM/PM10 emitted from these processes is from metallic castings. Casting metal is 0.385% lead and 3.1% manganese by weight.
There are no HAPs in the furan no bake resinmold wash, release agent, and paint.

Methodology
PTE Metallic HAPs (tons/yr) = PM/PM10 emissions (tons/yr) x Weight % HAPs (%)
PTE Misc. Combustion HAPs (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb HAP/lb input)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Mr. Bruce Johnson
North Vernon Industry Corporation
3750 4th Street
North Vernon, IN 47265

DATE: June 5, 2013

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

SUBJECT: Final Decision
Part 70
079-32661-00018

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:
Jack Bodi, Responsible Official
Brenda Mathew, Consultant
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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Indianapolis, Indiana 46204
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Toll Free (800) 451-6027
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TO: Jennings County Public Library

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

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

Applicant Name: North Vernon Industry Corporation
Permit Number: 079-32661-00018

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	DPABST 6/5/2013 North Vernon Industry Corporation 079-32661-00018 (Final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
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2		Jack Bodi Senior VP North Vernon Industry Corporation 3750 4th St North Vernon IN 47265 *(RO CAATS)*									
3		North Vernon City Council and Mayors Office 275 Main Street North Vernon IN 47265 *(Local Official)*									
4		Jennings Co Public Library 2375 N. State Hwy 3 North Vernon IN 47265-7483 *(Library)*									
5		Jennings County Commissioners Jennings County Courthouse Vernon IN 47282 *(Local Official)*									
6		Jennings County Health Department 200 E. Brown St, Courthouse Annex, P.O. Box 323 Vernon IN 47282-0323 *(Health Department)*									
7		Ms. Brenda Mathew Keramida 401 N. College Avenue Indianapolis IN 46202 *(Consultant)*									
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