INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: May 30, 2008

RE: Dalton Corporation / 085-25675-00003

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.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Mr. Michael Schall
Dalton Corporation, Warsaw Manufacturing Plant
1900 E. Jefferson Street,
Warsaw, IN 46580

May 30, 2008

Re: 085-25675-00003
Significant Permit Modification to
Part 70 Permit No: T 085-6708-00003

Dear Mr. Schall:

Dalton Corporation, Warsaw Manufacturing Plant was issued a Part 70 Operating Permit on May 9, 2007 for the manufacturing of gray iron foundry. A letter requesting changes to this permit was received on December 13, 2007. 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.

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 Josiah Balogun, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Josiah Balogun or extension (4-5257), or dial (317) 234-5257.

Sincerely/Original Signed By:

Tripurari Sinha, Ph.D., Section Chief
Permits Branch
Office of Air Quality

Attachments:
- Updated Permit
- Technical Support Document
- PTE Calculations

JB

cc: File – Kosciusko County
Kosciusko County Health Department
U.S. EPA, Region V
Air Compliance Inspector
Compliance Data Section
Permits Administration and Development

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Dalton Corporation, Warsaw Manufacturing Facility
1900 East Jefferson Street
Warsaw, Indiana 46580

(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 deviation from 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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T 085-6708-00003	
Issued by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: May 9, 2007 Expiration Date: May 9, 2012

Significant Permit Modification No.: 085-25675-00003	
Issued by/Original Signed By: Tripurari Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Issuance Date: May 30, 2008 Expiration Date: May 9, 2012

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	1900 E. Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
General Source Phone Number:	(574) 267-8111
SIC Code:	3321
County Location:	Kosciusko
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules Major Source, under Section 112 of the Clean Air Act Secondary Metal Production Facility 1 of 28 listed source categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

SECTION D.1

(1) **Cupola Charge Handling**
Cupola Charge Handling operations, constructed prior to 1977, with a nominal charging capacity of 53.45 tons per hour of solid metal, coke, and limestone.

Emissions from the Cupola Charge Handling operations are uncontrolled.

SECTION D.2

(2) **Cupola Melt Furnace**
One (1) Cupola Melt Furnace, constructed prior to 1977, with a nominal capacity of 48.5 tons per hour of metal melted, and a maximum heat input capacity of 69.95 million British thermal units (MMBtu) per hour.

The particulate emissions from the Cupola Melt Furnace are captured and controlled by a wet scrubber, identified as Wet Scrubber A. The carbon monoxide emissions from the Cupola Melt Furnace are captured and controlled by three (3) natural gas fired afterburners, each with a maximum heat input capacity of 2.2 million British thermal units (MMBtu) per hour. Emissions exhaust through a stack, identified as Stack A.

The fugitive particulate emissions from the Cupola Charge Door are captured and controlled by a baghouse, identified as Baghouse #14, and exhaust through a stack, identified as Stack AD.

Hot Blast Preheater
One natural gas fired Hot Blast Preheater, constructed in 1981, with a maximum heat input capacity of 22 million British thermal units (MMBtu) per hour for preheating the blast air for the Cupola Melt Furnace.

SECTION D.3

(3) **Herman 1 Mold Line**

(a) One (1) Herman 1 Pouring Station, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour, and 155 tons of mold and core sand per hour.

Emissions from the Herman 1 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-3 and V-4.

(b) One (1) Herman 1 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour and 155 tons of mold and core sand per hour.

Emissions from the Herman 1 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through three (3) vents, identified as Vents V-5, V-6, and V-7.

(c) One (1) Herman 1 Shakeout process, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour and 155 tons of mold and core sand per hour.

The particulate emissions from the Herman 1 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #2, and exhaust through a stack, identified as Stack C.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

(d) One (1) Herman 1 Sand Handling process, constructed prior to 1977, with a nominal throughput of 155 tons of mold and core sand per hour.

The Herman 1 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 1 Sand Handling process are captured and controlled by two wet (2) collectors, identified as Wet Collector #2 and Wet Collector #3, and exhaust through two (2) stacks, identified as Stack C and Stack B, respectively.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(4) **Herman 2 Mold Line**

(a) One (1) Herman 2 Pouring Station, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-19.

(b) One (1) Herman 2 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-8 and V-9.

(c) One (1) Herman 2 Shakeout process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

The particulate emissions from the Herman 2 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #3, and exhaust through a stack, identified as Stack B.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(d) One (1) Herman 2 Sand Handling process, constructed prior to 1977, with a nominal throughput of 166 tons of mold and core sand per hour.

The Herman 2 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 2 Sand Handling process are captured and controlled by two (2) baghouses, identified as Baghouse #1 and Baghouse #13, and exhaust through two (2) stacks, identified as Stack F and Stack Y, respectively.

SECTION D.4

(5) **Herman 3 Mold Line**

The volatile organic compound (VOC) emissions from the Herman 3 Mold line are reduced by one (1) Sonoperoxone® system (or an equivalent advanced oxidation system), sand system optimization, use of low VOC core resin binder materials, and automatic mold vent-off gas ignition.

The Sonoperoxone® system is common to:
– Herman 3 Pouring Station,
– Herman 3 Castings Cooling,
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(a) One (1) Herman 3 Pouring Station, constructed in 1991, with a nominal throughput of 28 tons of iron per hour and 165 tons of mold and core sand per hour.

Emissions from the Herman 3 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-10.

(b) One (1) Herman 3 Castings Cooling process, constructed in 1991, and modified in 2004, with a nominal throughput of 28 tons of iron per hour, and 165 tons of mold and core sand per hour.

Emissions from the Herman 3 Castings Cooling process are captured, but uncontrolled and exhaust to the atmosphere through a vent, identified as Vent V-12.

(c) One (1) Herman 3 Shakeout process, constructed in 1991, with a nominal throughput of 28 tons of iron per hour, and 165 tons of mold and core sand per hour.

The particulate emissions from the Herman 3 Shakeout process are captured and controlled by:
– a wet collector, identified as Wet Collector #4, and exhaust through a stack, identified as Stack E; and
– a baghouse, identified as Baghouse #11 and exhaust through a stack, identified as Stack W.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(d) One (1) Herman 3 Sand Handling process, constructed in 1991, with a nominal throughput of 165 tons of mold and core sand per hour.

The Herman 3 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

Particulate emissions from the Herman 3 Sand Handling process are captured and controlled by:
– a wet collector, identified as Wet Collector #1, and exhaust through a stack, identified as Stack D; and
– a wet collector, identified as Wet Collector #4, and exhaust through a stack, identified as Stack E; and
– a baghouse, identified as Baghouse #11, and exhaust through a stack, identified as Stack W.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

SECTION D.5

(6) **Inclined Shakeout and Sort System**
One (1) Inclined Shakeout and Sort System, constructed prior to 1977, with a nominal throughput of 48.5 tons of iron per hour.

The particulate emissions from the Inclined Shakeout and Sort System are captured and controlled by a baghouse, identified as Baghouse #2, and exhaust through a stack, identified as Stack G.

(7) **Waste Sand Handling, Screening and Transport System**
One (1) Waste Sand Handling, Screening and Transport System, constructed prior to 1977, with a nominal throughput of 20 tons of waste sand per hour.

The Waste Sand Handling, Screening and Transport System consists of a rotary screen process, a magnetic separator, a silo, an elevated bin hopper, and a transport system.

The particulate emissions from the Waste Sand Handling, Screening and Transport system are captured and controlled by a baghouse, identified as Baghouse #9, and exhaust through a stack, identified as Stack R.

SECTION D.6

(8) **Shot Blast Machines**

(a) Four (4) Shot Blast Machines:

(1) Three (3) Shot Blast Machines, identified as SB-1, SB-2, and SB-4, each constructed prior to 1977, each with a nominal capacity of 5.0 tons of iron castings per hour.

(2) One (1) Shot Blast Machine, identified as SB-3, constructed in 1981, with a nominal throughput of 5.0 tons of iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #3 that exhaust to a stack, identified as Stack H.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(b) Three (3) Shot Blast Machines:

(1) One (1) Shot Blast Machine, identified as SB-5, constructed prior to 1977, with a nominal throughput of 5.0 tons of iron castings per hour.

(2) One (1) Shot Blast Machine, identified as SB-6, constructed in 1981, with a nominal throughput of 5.0 tons of iron castings per hour.

(3) One (1) Shot Blast Machine, identified as SB-8, constructed in 1988, with a nominal throughput of 8.0 tons of iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #16 that exhaust through a stack, identified as Stack AG.

The Baghouse #16 is common to:
– Shot Blast Machines SB-5 and SB-6,
– Shot Blast Machine SB-8,
– Grinders GR-11 through GR-14, and
– Grinders GR-16 and GR-17.

(c) One (1) Shot Blast Machine, identified as SB-7, constructed in 1978 with a nominal throughput of 6.0 tons of iron castings per hour.

The particulate emissions from this Shot Blast Machine are captured and controlled by a baghouse, identified as Baghouse #6 that exhaust through a stack, identified as Stack K.

The Baghouse #6 is common to:
– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

(d) One (1) Shot Blast Machine, identified as SB-9, constructed in 1995 with a nominal throughput of 12.5 tons of iron castings per hour.

The particulate emissions from this Shot Blast Machine are captured and controlled by a baghouse, identified as Baghouse #12 that exhaust through a stack, identified as Stack X.

The Baghouse #12 is common to:
– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

(e) Two (2) Shot Blast Machines, permitted to be constructed in 2006, identified as SB-10 and SB-11, each with a nominal capacity of 2.5 tons of gray iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #3 that exhaust through a stack, identified as Stack H.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(9) **Grinders**

(a) Twelve (12) Grinders, identified as GR-1 through GR-10, GR-29, and GR-30, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #15 that exhaust through a stack, identified as Stack AE.

The Baghouse #15 is common to:
– Grinders GR-1 through GR-10, and
– Grinders GR-29 and GR-30.

(b) Six (6) Grinders, identified as GR-11 through GR-14, GR-16, and GR-17, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #16 that exhaust through as stack, identified as Stack AG:

The Baghouse #16 is common to:
– Shot Blast Machines SB-5 and SB-6,
– Shot Blast Machine SB-8,
– Grinders GR-11 through GR-14, and
– Grinders GR-16 and GR-17.

(c) Eight (8) Grinders, identified as GR-19, GR-20, GR-23, GR-25, GR-26, and GR-34 through GR-36, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #6 that exhaust through a stack, identified as Stack K:

The Baghouse #6 is common to:
– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

(d) Four (4) Grinders, identified as GR-31 through GR-33; and GR-37, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #12 that exhaust through a stack, identified as Stack X.

The Baghouse #12 is common to:
– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

SECTION D.7

(10) **Paint Dip Tank**
One (1) Paint Dip Tank for painting processed iron castings, constructed prior to 1977, with a nominal throughput of 6.5 gallons of paint per hour.

Emissions from the Paint Dip Tank are uncontrolled.

SECTION D.8

(11) **Hot Box Core Making Line #6** (also known as Mercury Marine)
One (1) Hot Box Core Making Line #6, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #6 consists of the following emission units:

(a) One (1) Core Sand Handling Process, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Hot Box Bag Feeder, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Bag Feeder are uncontrolled.

(2) One (1) Hot Box Manual Elevator, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Manual Elevator are uncontrolled.

(3) One (1) natural gas fired Hot Box Sand Heater #6, constructed in 1991, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #6 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #6, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Sand Mixer #6 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #1, constructed in 1991, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour.

Emissions from the Hot Box Core Machine #1 are uncontrolled.

(12) **Hot Box Core Making Line #7**
One (1) Hot Box Core Making Line #7, constructed in 1996, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #7 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
- Pneumatic Sand Transporter #1,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper #7.

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(3) One (1) Hot Box Sand Hopper #7, constructed in 1996.

The particulate emissions from the Hot Box Sand Hopper #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(4) One (1) natural gas fired Hot Box Sand Heater #7, constructed in 1996, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #7, constructed in 1996, with a nominal throughput of 0.70 tons of sand per hour.

Emissions from the Hot Box Sand Mixer #7 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #26, constructed in 1995, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour.

Emissions from the Hot Box Core Machine #26 are uncontrolled.

(13) **Hot Box Core Making Line #9 (also referred to as Core Making Line #9)**
One (1) Hot Box Core Making Line #9, constructed in 2002, with a nominal sand throughput of 18.0 tons of sand per hour. The Hot Box Core Making Line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 and modified in 2008, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, one (1) natural gas fired Core Oven:

(1) One (1) natural gas fired Hot Box Core Machine #8, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #8 and natural gas fired Core Oven #9, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Hot Box Core Machine #8 are uncontrolled.

Emissions from the Core Wash Dip Tank #8 are uncontrolled.

(2) One (1) natural gas fired Hot Box Core Machine #9, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #9 and natural gas fired Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #9 are uncontrolled.

Emissions from the Core Wash Dip Tank #9 are uncontrolled.

(3) One (1) natural gas fired Hot Box Core Machine #10, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #10 and natural gas fired Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #10 are uncontrolled.

Emissions from the Core Wash Dip Tank #10 are uncontrolled.

The natural gas fired Hot Box Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour:

(d) One (1) electric Hot Box Core Oven #5.

Emissions from the Hot Box Core Oven #5 are uncontrolled.

Dalton intends to convert Line #9 from Hot Box to a Phenolic Urethane Core making Line #9

Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

(14) Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

One (1) Phenolic Urethane Core Making Line #9, initially constructed in 2002 as a hotbox process and modified in 2008, with a nominal sand throughput of 18.0 tons of sand per hour. The Phenolic Urethane Core Making line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 and modified in 2008, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, constructed in 2002 and modified in 2008, three (3) Core Wash Dip Tanks and two (2) natural gas fired Core Ovens:

(1) One (1) Phenolic Urethane Core Machine #31 and its corresponding Core Wash Dip Tank #31and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #31 are uncontrolled.

Emissions from the Core Wash Dip Tank #31 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #32, and its corresponding Core Wash Dip Tank #32 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #32 are uncontrolled.

Emissions from the Core Wash Dip Tank #32 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #33, and its corresponding Core Wash Dip Tank #33 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #33 are uncontrolled.

Emissions from the Core Wash Dip Tank #33 are uncontrolled.

(A) One (1) natural gas fired Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour;

The only new emission unit being constructed at the source is the Core Oven #10.

(B) One (1) natural gas fired Core Oven #10 has a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour;

(d) One (1) electric Phenolic Urethane Core Oven #5.

Emissions from the Phenolic Urethane Core Oven #5 are uncontrolled.

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(15) **Phenolic Urethane Core Making Line #1**
One (1) Phenolic Urethane Core Making Line #1, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #1 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #1.

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #1, constructed in 1989, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Phenolic Urethane Core Sand Hopper #1 is common to:
– Phenolic Urethane Core Making Lines #1 and #2.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(4) One (1) electric Phenolic Urethane Sand Heater #1, constructed in 1989, for heating sand, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(b) One (1) Phenolic Urethane Core Sand Mixer #1, constructed in 1989, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #1 are uncontrolled.

(c) Five (5) Core Machines, five (5) Core Wash Dip Tanks, and three (3) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #15, constructed in 1986, and its corresponding Core Wash Dip Tank #15 and natural gas fired Core Oven #1, constructed in 1986, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #15 are uncontrolled.

The natural gas fired Core Oven #1 is common to:

– Phenolic Urethane Core Machines #15 and #16.

(2) One (1) Phenolic Urethane Core Machine #16, constructed in 1986, and its corresponding Core Wash Dip Tank #16 and natural gas fired Core Oven #1, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #16 are uncontrolled.

The natural gas fired Core Oven #1 is common to:

– Phenolic Urethane Core Machines #15 and #16.

(3) One (1) Phenolic Urethane Core Machine #17, constructed in 1988, and its corresponding Core Wash Dip Tank #17 and natural gas fired Core Oven #17, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #17 are uncontrolled.

(4) One (1) Phenolic Urethane Core Machine #18, constructed in 1989, and its corresponding Core Wash Dip Tank #18 and natural gas fired Core Oven #2, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #18 are uncontrolled.

The natural gas fired Core Oven #2 is common to:

– Phenolic Urethane Core Machines #18 and #19.

(5) One (1) Phenolic Urethane Core Machine #19, constructed in 1989, and its corresponding Core Wash Dip Tank #19 and natural gas fired Core Oven #2, each with a nominal throughput of 7.0 tons sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #19 are uncontrolled.

The natural gas fired Core Oven #2 is common to:

– Phenolic Urethane Core Machines #18 and #19.

Each natural gas fired Core Oven on Phenolic Urethane Core Making Line #1 has a maximum heat input capacity of 2.0 million British thermal units (Btu) per hour.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #15, Phenolic Urethane Core Machine #16, Phenolic Urethane Core Machine #17, Phenolic Urethane Core Machine #18, and Phenolic Urethane Core Machine #19 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(16) **Phenolic Urethane Core Making Line #2**
One (1) Phenolic Urethane Core Making Line #2, with a nominal sand throughput of 3.0 tons of sand per hour. The Phenolic Urethane Core Making Line #2 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 3.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #1.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #1, constructed in 1989, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Phenolic Urethane Core Sand Hopper #1 is common to:
- Phenolic Urethane Core Making Lines #1 and #2.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(b) One (1) Phenolic Urethane Core Sand Mixer #2, constructed in 1987, with a nominal throughput of 3.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #2 are uncontrolled.

(c) Five (5) Core Machines, five (5) Core Wash Dip Tanks, and one (1) portable electric Core Oven

(1) One (1) Phenolic Urethane Core Machine #10, constructed in 1968, and its corresponding Core Wash Dip Tank #10 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #10 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #11, constructed in 1968, and its corresponding Core Wash Dip Tank #11 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #11 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #12, constructed in 1978, and its corresponding Core Wash Dip Tank #12 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #12 are uncontrolled.

(4) One (1) Phenolic Urethane Core Machine #13, constructed in 1979, and its corresponding Core Wash Dip Tank #13 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #13 are uncontrolled.

(5) One (1) Phenolic Urethane Core Machine #14, constructed in 1992, and its corresponding Core Wash Dip Tank #14 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #14 are uncontrolled.

The portable electric Core Oven #1 is common to:
– Phenolic Urethane Core Machines #10 through #14.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #10, Phenolic Urethane Core Machine #11, Phenolic Urethane Core Machine #12, Phenolic Urethane Core Machine #13, and Phenolic Urethane Core Machine #14 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(17) **Phenolic Urethane Core Making Line #3**
One (1) Phenolic Urethane Core Making Line #3, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #3 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
- Phenolic Urethane Core Making Lines #3 and #5, and
- Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) electric Phenolic Urethane Sand Heater #3, constructed in 1980.

The particulate emissions from the Phenolic Urethane Sand Heater #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
– Phenolic Urethane Core Sand Hoppers #3 and #4, and
– Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Phenolic Urethane Core Sand Mixer #3, constructed in 1980, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #3 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, and two (2) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #2, constructed in 1982, and its corresponding Core Wash Dip Tank #2 and natural gas fired Core Oven #3, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #2 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #4, constructed in 1981, and its corresponding Core Wash Dip Tank #4 and natural gas fired Core Oven #4, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #4 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #5, constructed in 1968, and its corresponding Core Wash Dip Tank #5 and natural gas fired Core Oven #4, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #5 are uncontrolled.

Each natural gas fired Core Oven on Phenolic Urethane Core Making Line #3 has a maximum heat input capacity of 2.0 million British thermal units (Btu) per hour.

The natural gas fired Core Oven #4 is common to:
– Phenolic Urethane Core Machines #4 and #5.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #2, Phenolic Urethane Core Machine #4, and Phenolic Urethane Core Machine #5 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(18) **Phenolic Urethane Core Making Line #4**
One (1) Phenolic Urethane Core Making Line #4, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #4 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #4.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #4, constructed in 1986.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #4 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) electric Phenolic Urethane Sand Heater #4, constructed in 1986:

The particulate emissions from the Phenolic Urethane Sand Heater #4 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Phenolic Urethane Core Sand Mixer #4, constructed in 1986, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #4 are uncontrolled.

(c) Four (4) Core Machines, one (1) Core Wash Dip Tank, and one (1) natural gas fired Core Oven

(1) One (1) Phenolic Urethane Core Machine #7, constructed in 1986, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(2) One (1) Phenolic Urethane Core Machine #8, constructed in 1968, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(3) One (1) Phenolic Urethane Core Machine #9, constructed in 1968, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(4) One (1) Phenolic Urethane Core Machine #25, constructed in 1993, that contains two (2) core boxes that cannot be operated simultaneously due to having only one blow head for blowing sand into the box, and its corresponding Core Wash Dip Tank #25 and natural gas fired Core Oven #25, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #25 are uncontrolled.

The natural gas fired Core Oven #25 has a maximum heat input capacity of at 800,000 British thermal units (Btu) per hour.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #7, Phenolic Urethane Core Machine #8, Phenolic Urethane Core Machine #9, and Phenolic Urethane Core Machine #25 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(19) **Phenolic Urethane Core Making Line #5**
One (1) Phenolic Urethane Core Making Line #5, with a nominal sand throughput of 5.0 tons of sand per hour. The Phenolic Urethane Core Making Line #5 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 5.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
– Phenolic Urethane Core Making Lines #3 and #5, and
– Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
– Phenolic Urethane Core Sand Hoppers #3 and #4, and
– Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) natural gas fired Phenolic Urethane Sand Heater #5, constructed in 1992, with a maximum heat input capacity of 192,000 British thermal units (Btu) per hour.

The particulate emissions from the Phenolic Urethane Sand Heater #5 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(b) One (1) Phenolic Urethane Core Sand Mixer #5, constructed in 1992, with a nominal throughput of 5.0 tons of core sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #5 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, and one (1) natural gas fired Core Oven

(1) One (1) Phenolic Urethane Core Machine #21, constructed in 1992, and its corresponding Core Wash Dip Tank #21 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #21 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #22, constructed in 1992, and its corresponding Core Wash Dip Tank #22 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #22 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #28, constructed in 1998, and its corresponding Core Wash Dip Tank #28 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #28 are uncontrolled.

The natural gas fired Core Oven on Phenolic Urethane Core Making Line #5 has a maximum heat input capacity of 2.4 million British thermal units (Btu) per hour.

The natural gas fired Core Oven #8 is common to:
– Phenolic Urethane Core Machines #21 and #22, and
– Phenolic Urethane Core Machine #28.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #21, Phenolic Urethane Core Machine #22, and Phenolic Urethane Core Machine #28 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(20) **Phenolic Urethane Core Making Line #8**
One (1) Phenolic Urethane Core Making Line #8, with a nominal sand throughput of 5.0 tons of sand per hour. The Phenolic Urethane Core Making Line #8 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 5.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Phenolic Urethane Core Sand Hopper #8.

The Pneumatic Sand Transporter #1 is common to:
– Northeast (NE) Sand Silo,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(3) One (1) Phenolic Urethane Core Sand Hopper #8, constructed in 1997:

The particulate emissions from the Phenolic Urethane Core Sand Hopper #8 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(4) One (1) natural gas fired Phenolic Urethane Sand Heater #8, constructed in 1997, with a maximum heat input capacity of 192,000 British thermal units (Btu) per hour.

The particulate emissions from the Phenolic Urethane Sand Heater #8 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.
The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,

- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(b) One (1) Phenolic Urethane Core Sand Mixer #8, constructed in 1997, with a nominal throughput of 5.0 tons of core sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #8 are uncontrolled.

(c) Two (2) Core Machines, two (2) Core Wash Dip Tank, and two (2) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #1, constructed in 1982, and its corresponding Core Wash Dip Tank #1 and natural gas fired Core Oven #27, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #1 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #27, constructed in 1996, and its corresponding Core Wash Dip Tank #27 and natural gas fired Core Oven #27, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #27 are uncontrolled.

The natural gas fired Core Oven #27 has a maximum heat input capacity of 1.6 million British thermal units (Btu) per hour and is common to:

- Phenolic Urethane Core Machine #1, and
- Phenolic Urethane Core Machine #27.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of Phenolic Urethane Core Machine #1 and Phenolic Urethane Core Machine #27 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:

- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

SECTION D.10

(21) **Shell Core Making Process**
One (1) Shell Core Sand Making Process, with a nominal sand throughput of 0.8 tons of sand per hour. The Shell Core Sand Making Process consists of the following emission units:

(a) One (1) Shell Core Sand Handling Process, with a nominal sand throughput of 0.8 tons of sand per hour:

(1) North (N) Shell Sand Silo and South (S) Shell Sand Silo, each constructed prior to 1977, with a capacity to provide coated sand to the two (2) Shell Core Sand Hoppers.

Emissions from the North (N) Shell Sand Silo and South (S) Shell Sand Silo are uncontrolled.

(2) Two (2) Shell Core Sand Hoppers, identified as Shell Core Sand Hopper #1 and Shell Core Sand Hopper #2, constructed prior to 1977, with a capacity to provide shell core sand to all Shell Core Machines.

Emissions from the Shell Core Sand Hoppers are uncontrolled.

(b) Three (3) Core Machines, and Three (3) Core Wash Dip Tanks

(1) One (1) Shell Core Machine #6, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #6, with a nominal throughput of 0.2 tons of sand per hour.

Emissions from the Shell Core Machine #6 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #6 are uncontrolled.

(2) One (1) Shell Core Machine #7, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #7, with a nominal throughput of 0.3 tons of sand per hour.

Emissions from the Shell Core Machine #7 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #7 are uncontrolled.

(3) One (1) Shell Core Machine #8, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #8, with a nominal throughput of 0.3 tons of sand per hour.

Emissions from the Shell Core Machine #8 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #8 are uncontrolled.

SECTION D.11

(22) **Air Set Core Making Process**
One (1) Air Set Core Making Process, with a nominal sand throughput of 6.0 tons of sand per hour. The Air Set Core Making Process consists of the following emission units:

(a) One (1) Air Set Core Sand Handling Process, with a nominal sand throughput of 6.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Air Set Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
- Phenolic Urethane Core Making Lines #3 and #5, and
- Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Air Set Core Sand Mixer #2, constructed prior to 1977, with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Air Set Core Sand Mixer #2 are uncontrolled.

(c) One (1) Air Set Core Machine #2, constructed prior to 1977, with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Air Set Core Machine #2 are uncontrolled.

SECTION D.12

(23) **Large Core Production Cell**
One (1) Large Core Production Cell (ID LCC), permitted to be constructed in 2006, which will initially be utilized as a phenolic urethane cold box core making operation. The Large Core Production Cell consists of the following emission units:

(a) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
- Pneumatic Sand Transporter #1,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(b) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Phenolic Urethane Core Sand Hopper #8.

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(c) One (1) Large Core Sand Weigh Hopper, permitted to be constructed in 2006, with a nominal throughput capacity of 15 tons of sand per hour.

The Large Core Sand Weigh Hopper is common to:
- Large Core Production Cell Lines #10 and #11.

The particulate emissions from the Large Core Sand Weigh Hopper are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(d) Large Core Production Cell Line #10, constructed in 2006, consisting of the following emission units:

(1) One (1) Sand / Resin Mixer #10, with a nominal throughput capacity of 15 tons of sand per hour and 34.18 pounds of resin per hour

Emissions from the Sand / Resin Mixer #10 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(2) One (1) Large Core Sand Holding Hopper #10, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Holding Hopper #10 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(3) One (1) electric Large Core Sand Heater #10, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Heater #10 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(4) One (1) Cold Box Phenolic Urethane Core Machine #29, with a nominal throughput capacity of 7 tons of cores per hour, using a nominal of 2.75 pounds of catalyst per ton of core sand;

(A) Operating Scenario #1
The current operating scenario, Operating Scenario #1, will use Resin #1 and Catalyst #1. Resin #1 is a phenolic urethane resin. Catalyst #1 is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the Cold Box Phenolic Urethane Core Machine #30, when using Resin #1 and Catalyst #1, are captured at the core box and controlled by an acid scrubber, identified as Acid Scrubber AF, and exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(B) Operating Scenario #2
Operating Scenario #2 will use Resin #2 and Catalyst #2. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(C) Operating Scenario #3
Operating Scenario #3 will use Resin #3 and Catalyst #3. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(5) One (1) Core Wash Dip Tank #29, with a nominal capacity of 15 tons of cores per hour and 20.408 pounds of core wash per ton of core sand.

Emissions from the Core Wash Dip Tank #29 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(e) Large Core Production Cell Line #11, permitted to be constructed in 2006, consisting of the following emission units:

(1) One (1) Sand / Resin Mixer #11, with a nominal throughput capacity of 15 tons of sand per hour and 34.18 pounds of resin per hour, with no emission controls;

Emissions from the Sand / Resin Mixer #11 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(2) One (1) Large Core Sand Holding Hopper #11, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Holding Hopper #11 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(3) One (1) electric Large Core Sand Heater #11, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Heater #11 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(4) One (1) Cold Box Phenolic Urethane Core Machine #30, with a nominal throughput capacity of 7 tons of cores per hour, using a nominal of 2.75 pounds of catalyst per ton of core sand;

(A) Operating Scenario #1
The current operating scenario, Operating Scenario #1, will use Resin #1 and Catalyst #1. Resin #1 is a phenolic urethane resin. Catalyst #1 is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the Cold Box Phenolic Urethane Core Machine #30, when using Resin #1 and Catalyst #1, are captured at the core box and controlled by an acid scrubber, identified as Acid Scrubber AF, and exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(B) Operating Scenario #2
Operating Scenario #2 will use Resin #2 and Catalyst #2. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(C) Operating Scenario #3
Operating Scenario #3 will use Resin #3 and Catalyst #3. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(5) One (1) Core Wash Dip Tank #30, with a nominal capacity of 15 tons of cores per hour and 20.408 pounds of core wash per ton of core sand with no emission controls; and

Emissions from the Core Wash Dip Tank #30 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(f) One (1) natural gas fired Core Oven #29, with a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour.

Emissions from the natural gas fired Core Oven #29 are captured, but uncontrolled, and exhaust to a stack, identified as Stack V-45.

The natural gas fired Core Oven #29 is common to:
- Large Core Production Cell Lines #10 and #11.

SECTION E.1 – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Under the Iron and Steel Foundries NESHAP (40 CFR 63, Subpart EEEEE), the following affected facilities are considered an existing affected source:

(1) Cupola Melt Furnace;
(2) Herman 1 Pouring Station;
(3) Herman 2 Pouring Station; and
(4) Herman 3 Pouring Station.

SECTION F.1 – FUGITIVE DUST CONTROL PLAN

(1) **Scrap Yard**

(2) **Herman 2 Mold Line**

(a) One (1) Herman 2 Pouring Station, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-19.

(b) One (1) Herman 2 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-8 and V-9.

(c) One (1) Herman 2 Shakeout process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

The particulate emissions from the Herman 2 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #3, and exhaust through a stack, identified as Stack B.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(d) One (1) Herman 2 Sand Handling process, constructed prior to 1977, with a nominal throughput of 166 tons of mold and core sand per hour.

The Herman 2 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 2 Sand Handling process are captured and controlled by two (2) baghouses, identified as Baghouse #1 and Baghouse #13, and exhaust through two (2) stacks, identified as Stack F and Stack Y, respectively.

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

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

(a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]

(b) The following equipment related to manufacturing activities no resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(c) Cutting 200,000 linear feet or less than one (1") plate or equivalent. [326 IAC 6-3-2]

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

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T 085-6708-00003, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

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

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

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

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

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans (PMPs) required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(1) That this permit contains a material mistake.

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

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

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

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

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

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 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 deviation from 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 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 the proposed change. The Permittee shall attached every such notice to the Permittee's copy of this permit; and

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

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

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

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

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

(3) Any change in emissions; and

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

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

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

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

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

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

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

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

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

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

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

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

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

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

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

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in deviation from 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 nominal process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(g) Indiana Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

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

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this permit.

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

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

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

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

(a) When the results of a stack test performed in conformance with Section C – Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

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

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year 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
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions”

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

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

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

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

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

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

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and

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

The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

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

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C – General Record Keeping Requirements.

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

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC61-53 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.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(1) **Cupola Charge Handling**
Cupola Charge Handling operations, constructed prior to 1977, with a nominal charging capacity of 53.45 tons per hour of solid metal, coke, and limestone.

Emissions from the Cupola Charge Handling operations are uncontrolled.

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

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

D.1.1 PM, PM_{10}, and Lead PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

Metal Charge Limit

(a) The amount of metal charged in the Cupola Charge Handling shall be limited to 199,194 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

Cupola Charge Handling

(b) The PM emissions from the Cupola Charge Handling shall be limited to 0.6 pounds per ton of metal charged.

(c) The PM_{10} emissions from the Cupola Charge Handling shall be limited to 0.36 pounds per ton of metal charged.

(d) The lead emissions from the Cupola Charge Handling shall be limited to 0.002 pounds per ton of metal charged.

Compliance with these limits and the limits specified in Conditions D.2.1, D.3.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

D.1.2 Particulate Emission Limitation [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 Cupola Charge Handling shall not exceed 45.20 pounds per hour when operating at a process weight rate of 53.45 tons of metal melted per hour.

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

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

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

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

D.1.3 Record Keeping Requirements

(a) To document compliance with Condition D.1.1 – PM, PM_{10}, and Lead PSD Minor Limits, the Permittee shall maintain records of the amount of metal charged each month in the Cupola Charge Handling.

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

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 – PM, PM_{10}, and Lead PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(2) **Cupola Melt Furnace**
One (1) Cupola Melt Furnace, constructed prior to 1977, with a nominal capacity of 48.5 tons per hour of metal melted, and a maximum heat input capacity of 69.95 million British thermal units (MMBtu) per hour.

The particulate emissions from the Cupola Melt Furnace are captured and controlled by a wet scrubber, identified as Wet Scrubber A. The carbon monoxide emissions from the Cupola Melt Furnace are captured and controlled by three (3) natural gas fired afterburners, each with a maximum heat input capacity of 2.2 million British thermal units (MMBtu) per hour. Emissions exhaust through a stack, identified as Stack A.

The fugitive particulate emissions from the Cupola Charge Door are captured and controlled by a baghouse, identified as Baghouse #14, and exhaust through a stack, identified as Stack AD.

Hot Blast Preheater
One natural gas fired Hot Blast Preheater, constructed in 1981, with a maximum heat input capacity of 22 million British thermal units (MMBtu) per hour for preheating the blast air for the Cupola Melt Furnace.

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

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

D.2.1 PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

Metal Melted Limit

(a) The amount of metal melted in the Cupola Melt Furnace shall be limited to 187,919 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

Cupola Melt Furnace

(b) The PM emissions from the Cupola Melt Furnace shall be limited to 0.821 pounds per ton of metal.

(c) The PM_{10} emissions from the Cupola Melt Furnace shall be limited to 0.738 pounds per ton of metal.

(d) The SO_2 emissions from the Cupola Melt Furnace shall be limited to 1.25 pounds per ton of metal.

(e) The NO_X emissions from the Cupola Melt Furnace shall be limited to 0.1 pounds per ton of metal.

(f) The VOC emissions from the Cupola Melt Furnace shall be limited to 0.009 pounds per ton of metal.

(g) The CO emissions from the Cupola Melt Furnace shall be limited to 7.250 pounds per ton of metal.

(h) The Lead emissions from the Cupola Melt Furnace shall be limited to 0.002 pounds per ton of metal.

These limitations for the Cupola Melt Furnace are for Stack A and Stack AD combined.

Compliance with these limits and the limits specified in Conditions D.1.1, D.3.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

D.2.2 Particulate Emission Limitation [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:

(a) Cupola Melt Furnace (Wet Scrubber A, Stack A), and

(b) Charge door fugitive particulate emissions (Baghouse #14, Stack AD),

shall not exceed 44.3 pounds per hour when operating at a process weight rate of 48.5 tons of metal melted per hour.

This allowable particulate emission rate is for Stack A and Stack AD combined.

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

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

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Cupola Melt Furnace,

(b) Wet Scrubber A,

(c) Baghouse #14,

(d) Three (3) Afterburners, and

(e) Hot Blast Preheater.

Compliance Determination Requirements

D.2.4 Emission Controls Operation

(a) Wet Scrubber A – Cupola Melt Furnace
The Wet Scrubber A for particulate emissions control shall be in operation and control emissions from the Cupola Melt Furnace at all times when:

(1) the Cupola Melt Furnace is in operation, and

(2) during startup of the Cupola Melt Furnace.

(b) Baghouse #14 – Charge Door

(1) The Baghouse #14 for particulate emissions control shall be in operation and control fugitive particulate emissions from the charge door when the Cupola Melt Furnace is in operation.

(2) 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) Afterburners – Cupola Melt Furnace
The three (3) afterburners shall be in operation for CO emissions control from the Cupola Melt Furnace at all times when:

(1) the Cupola Melt Furnace is in operation, and

(2) during startup of the Cupola Melt Furnace.

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

(a) PM and PM_{10} Test

(1) The Permittee shall perform:

(A) PM testing, and

(B) PM_{10} testing

on the:

(i) Wet Scrubber A (Stack A), and

(ii) Baghouse #14 (Stack AD),

using methods as approved by the Commissioner, in order to demonstrate compliance with paragraphs (b) and (c) of Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits.

(2) The PM and PM_{10} tests shall be repeated at least once every two and a half (2.5) years from the date of the last valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.

(3) During the PM and PM_{10} tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Conditions D.2.8 – Scrubber Parametric Monitoring, and D.2.10 – Baghouse Parametric Monitoring.

(b) CO Test

(1) The Permittee shall perform CO testing on:

(A) Wet Scrubber A (Stack A), and

(B) Baghouse #14 (Stack AD),

using methods as approved by the Commissioner, in order to demonstrate compliance with paragraph (g) of Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits.

(2) The CO tests shall be repeated at least once every two and a half (2.5) years from the date of the last valid compliance demonstration.

(3) During the CO tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.2.7 – Cupola Melt Furnace Temperature Monitoring.

(c) SO_2 Test

(1) Within 180 days after the issuance of this permit, or two and a half (2.5) years from the date of the last valid PM, PM_{10}, and CO compliance demonstration for the Cupola, whichever is later, the Permittee shall perform SO_2 testing on:

(A) Wet Scrubber A (Stack A), and

(B) Baghouse #14 (Stack AD),

using methods as approved by the Commissioner, in order to demonstrate compliance with paragraph (d) of Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits.

(2) The SO_2 tests shall be repeated at least once every two and a half (2.5) years from the date of the last valid compliance demonstration.

(3) During the SO_2 tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Conditions D.2.7 – Cupola Melt Furnace Temperature Monitoring, and D.2.8 – Scrubber Parametric Monitoring.

(d) Testing shall be conducted in accordance with Section C – Performance Testing.

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

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Wet Scrubber A exhaust (Stack A), and

(2) Baghouse #14 exhaust stack (Stack AD)

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 in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.7 Cupola Melt Furnace Temperature Monitoring

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Cupola Melt Furnace for measuring the temperature of the Cupola Melt Furnace gas stream. For the purposes of this condition, continuous shall mean no less than once per minute.

The output of this system shall be recorded as an hourly average.

From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C – Response to Excursions or Exceedances whenever the hourly average temperature of the cupola gas stream is below 1300°F.

This minimum temperature requirement applies at all times during cupola operation, except for the following:

(1) periods when the Cupola Melt Furnace blast air is turned off;

(2) periods when the blast air has been turned on for less than 30 consecutive minutes; and

(3) during the last 30 minutes of operation of the Cupola Melt Furnace.

An hourly average temperature that is below 1300°F is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

The Permittee shall monitor the times that the Cupola Melt Furnace blast air is turned on and off.

(b) The Permittee shall determine the hourly average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits, as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C – Response to Excursions or Exceedances whenever the hourly average temperature of the Cupola Melt Furnace gas stream is below the hourly average temperature as observed during the compliant stack test. An hourly average temperature that is below the hourly average temperature as observed during the compliance stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.8 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop and flow rate of the Wet Scrubber A, at least once per day when the Cupola Melt Furnace is in operation.

(1) When for any one reading, the pressure drop across Wet Scrubber A is below a minimum of 34 inches of water or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Wet Scrubber A is below a minimum of 225 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

A pressure reading or flow rate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instruments used for determining the pressure and flow rate 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.2.9 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed, the failed scrubber 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).

D.2.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the Baghouse #14, at least once per day when the associated process is in operation. When for any one reading, the pressure drop across the baghouses is outside the range of 4.0 and 10.0 or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.2.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.12 Record Keeping Requirements

(a) To document compliance with Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits, the Permittee shall maintain records of the amount of metal melted in the Cupola Melt Furnace.

(b) To document compliance with Condition D.2.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet scrubber A and baghouse #14 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.2.7 – Cupola Melt Furnace Temperature Monitoring, the Permittee shall maintain records of the continuous temperature readings of the Cupola Melt Furnace gas stream and make such records available upon request to IDEM, OAQ.

(d) To document compliance with Condition D.2.8– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet scrubber A. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the process did not operate that day).

(e) To document compliance with Condition D.2.10– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #14. 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).

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

D.2.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 – PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(3) **Herman 1 Mold Line**

(a) One (1) Herman 1 Pouring Station, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour, and 155 tons of mold and core sand per hour.

Emissions from the Herman 1 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-3 and V-4.

(b) One (1) Herman 1 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour and 155 tons of mold and core sand per hour.

Emissions from the Herman 1 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through three (3) vents, identified as Vents V-5, V-6, and V-7.

(c) One (1) Herman 1 Shakeout process, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour and 155 tons of mold and core sand per hour.

The particulate emissions from the Herman 1 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #2, and exhaust through a stack, identified as Stack C.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

(d) One (1) Herman 1 Sand Handling process, constructed prior to 1977, with a nominal throughput of 155 tons of mold and core sand per hour.

The Herman 1 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 1 Sand Handling process are captured and controlled by two wet (2) collectors, identified as Wet Collector #2 and Wet Collector #3, and exhaust through two (2) stacks, identified as Stack C and Stack B, respectively.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(4) **Herman 2 Mold Line**

(a) One (1) Herman 2 Pouring Station, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-19.

(b) One (1) Herman 2 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-8 and V-9.

(c) One (1) Herman 2 Shakeout process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

The particulate emissions from the Herman 2 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #3, and exhaust through a stack, identified as Stack B.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(d) One (1) Herman 2 Sand Handling process, constructed prior to 1977, with a nominal throughput of 166 tons of mold and core sand per hour.

The Herman 2 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 2 Sand Handling process are captured and controlled by two (2) baghouses, identified as Baghouse #1 and Baghouse #13, and exhaust through two (2) stacks, identified as Stack F and Stack Y, respectively.

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

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

D.3.1 PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(a) Sand Limit
The combined amount of core and mold sand handled for the:

(1) Herman 1 Sand Handling,

(2) Herman 2 Sand Handling, and

(3) Herman 3 Sand Handling

shall be limited to 1,127,516 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This core and mold sand limitation is for the Herman 1, Herman 2, and Herman 3 Sand Handling combined.

(b) Herman 1 Pouring (V-3 and V-4)

(1) The PM emissions from the Herman 1 Pouring shall be limited to 0.118 pounds per ton of metal.

(2) The PM_{10} emissions from the Herman 1 Pouring shall be limited to 0.052 pounds per ton of metal.

(3) The SO_2 emissions from the Herman 1 Pouring shall be limited to 0.020 pounds per ton of metal.

(4) The NO_X emissions from Herman 1 Pouring shall be limited to 0.010 pounds per ton of metal.

(5) The VOC emissions from the Herman 1 Pouring shall be limited to 0.163 pounds per ton of metal.

(6) The Lead emissions from the Herman 1 Pouring shall be limited to 0.016 pounds per ton of metal.

These limitations for the Herman 1 Pouring are for vents V-3 and V-4 combined.

(c) Herman 1 Castings Cooling (V-5, V-6, and V-7)

(1) The PM emissions from the Herman 1 Castings Cooling shall be limited to 0.288 pounds per ton of metal.

(2) The PM_{10} emissions from the Herman 1 Castings Cooling shall be limited to 0.196 pounds per ton of metal.

(3) The VOC emissions from the Herman 1 Castings Cooling shall be limited to 0.687 pounds per ton of metal.

These limitations for the Herman 1 Castings Cooling are for vents V-5, V-6, and V-7 combined.

(d) Herman 1 Shakeout (Stack C)

(1) The PM emissions from the Herman 1 Shakeout shall be limited to 0.034 pounds per ton of metal and sand.

(2) The PM_{10} emissions from the Herman 1 Shakeout shall be limited to 0.058 pounds per ton of metal and sand.

(3) The VOC emissions from the Herman 1 Shakeout shall be limited to 0.115 pounds per ton of metal and sand.

(4) The lead emissions from the Herman 1 Shakeout shall be limited to 0.00018 pounds per ton of metal.

(e) Herman 1 Sand Handling (Stack B and Stack C)

(1) The PM emissions from the Herman 1 Sand Handling shall be limited to 0.034 pounds per ton of metal and sand.

(2) The PM_{10} emissions from the Herman 1 Sand Handling shall be limited to 0.058 pounds per ton of metal and sand.

(3) The VOC emissions from the Herman 1 Sand Handling shall be limited to 0.115 pounds per ton of metal and sand.

(4) The lead emissions from the Herman 1 Sand Handling shall be limited to 0.00018 pounds per ton of metal.

These limitations for the Herman 1 Sand Handling are for Stack B and Stack C combined.

(f) Herman 2 Pouring (V-19)

(1) The PM emissions from the Herman 2 Pouring shall be limited to 0.118 pounds per ton of metal.

(2) The PM_{10} emissions from the Herman 2 Pouring shall be limited to 0.052 pounds per ton of metal.

(3) The SO_2 emissions from the Herman 2 Pouring shall be limited to 0.020 pounds per ton of metal.

(4) The NO_X emissions from the Herman 2 Pouring shall be limited to 0.010 pounds per ton of metal.

(5) The VOC emissions from the Herman 2 Pouring shall be limited to 0.163 pounds per ton of metal.

(6) The Lead emissions from the Herman 2 Pouring shall be limited to 0.016 pounds per ton of metal.

(g) Herman 2 Castings Cooling (V-8 and V-9)

(1) The PM emissions from the Herman 2 Castings Cooling shall be limited to 0.288 pounds per ton of metal.

(2) The PM_{10} emissions from the Herman 2 Castings Cooling shall be limited to 0.196 pounds per ton of metal.

(3) The VOC emissions from the Herman 2 Castings Cooling shall be limited to 0.687 pounds per ton of metal.

These limitations for the Herman 2 Castings Cooling are for vents V-8 and V-9 combined.

(h) Herman 2 Shakeout (Stack B)

(1) The PM emissions from the Herman 2 Shakeout shall be limited to 0.034 pounds per ton of metal and sand.

(2) The PM_{10} emissions from the Herman 2 Shakeout shall be limited to 0.058 pounds per ton of metal and sand.

(3) The VOC emissions from the Herman 2 Shakeout shall be limited to 0.115 pounds per ton of metal and sand.

(4) The lead emissions from the Herman 2 Shakeout shall be limited to 0.00018 pounds per ton of metal.

(i) Herman 2 Sand Handling (Stack F and Stack Y)

(1) The PM emissions from the Herman 2 Sand Handling shall be limited to 0.034 pounds per ton of metal and sand.

(2) The PM_{10} emissions from the Herman 2 Sand Handling shall be limited to 0.058 pounds per ton of metal and sand.

(3) The VOC emissions from the Herman 2 Sand Handling shall be limited to 0.115 pounds per ton of metal and sand.

(4) The lead emissions from the Herman 2 Sand Handling shall be limited to 0.00018 pounds per ton of metal.

These limitations for the Herman 2 Sand Handling are for Stack F and Stack Y combined.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

D.3.2 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that the following emission units:

(a) Herman 1 Pouring,

(b) Herman 1 Castings Cooling,

(c) Herman 1 Shakeout,

(d) Herman 2 Pouring,

(e) Herman 2 Castings Cooling, and

(f) Herman 2 Shakeout

are subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) for CO emissions. Therefore, the Permit Shield provided by Condition B.12 – Permit Shield of this permit does not apply to these emission units with regards to 326 IAC 2-2 (PSD) for CO emissions.

On or before December 31, 2007, the Permittee shall submit a complete PSD application for CO emissions from pouring, cooling, and shakeout operations. Once the application has been submitted, IDEM, OAQ will promptly reopen this permit to include detailed requirements necessary to comply with 326 IAC 2-2 (PSD) and a schedule for achieving compliance with such requirements.

D.3.3 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) Herman 1 Pouring (V-3 and V-4)
The allowable particulate emission rate from the Herman 1 Pouring operation shall not exceed 57.7 pounds per hour when operating at a process weight rate of 185 tons of sand and metal per hour.

This limitation for the Herman 1 Pouring is for vents V-3 and V-4 combined.

(b) Herman 1 Castings Cooling (V-5, V-6, and V-7)
The allowable particulate emission rate from the Herman 1 Castings Cooling operation shall not exceed 57.7 pounds per hour when operating at a process weight rate of 185 tons of sand and metal per hour.

This limitation for the Herman 1 Castings Cooling is for vents V-5, V-6, and V-7 combined.

(c) Herman 1 Shakeout (Wet Collector #2, Stack C)
The allowable particulate emission rate from the Herman 1 Shakeout operation shall not exceed 57.7 pounds per hour when operating at a process weight rate of 185 tons of sand and metal per hour.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

(d) Herman 1 Sand Handling (Wet Collector #3, Stack B and Wet Collector #2, Stack C)
The allowable particulate emission rate from the Herman 1 Sand Handling operation shall not exceed 55.8 pounds per hour when operating at a process weight rate of 155 tons of molding sand per hour.

This limitation for the Herman 1 Sand Handling is for Stack B and Stack C combined.

Wet Collector #2 is common to:
– Herman 1 Shakeout, and
– Herman 1 Sand Handling.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(e) Herman 2 Pouring (V-19)
The allowable particulate emission rate from the Herman 2 Pouring operation shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203 tons of sand and metal per hour.

(f) Herman 2 Castings Cooling (V-8 and V-9)
The allowable particulate emission rate from the Herman 2 Castings Cooling operation shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203 tons of sand and metal per hour.

This limitation for the Herman 2 Castings Cooling is for vents V-8 and V-9 combined.

(g) Herman 2 Shakeout (Wet Collector #3, Stack B)
The allowable particulate emission rate from Herman 2 Shakeout operation shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203 tons of sand and metal per hour.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(h) Herman 2 Sand Handling (Baghouse #1, Stack F and Baghouse #13, Stack Y)
The allowable particulate emission rate from Herman 2 Mold Sand Handling operation shall not exceed 56.5 pounds per hour when operating at a process weight rate of 166 tons of molding sand per hour.

This limitation for the Herman 2 Sand Handling is for Stack F and Stack Y combined.

(i) The pounds per hour limitations were calculated with the following equation:

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

$E = 55 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Herman 1 Pouring,

(b) Herman 1 Castings Cooling,

(c) Herman 1 Shakeout,

(d) Herman 1 Sand Handling,

(e) Herman 2 Pouring,

(f) Herman 2 Castings Cooling,

(g) Herman 2 Shakeout,

(h) Herman 2 Sand Handling,

(i) Wet Collector #2,

(j) Wet Collector #3,

(k) Baghouse #1, and

(l) Baghouse #13.

Compliance Determination Requirements

D.3.5 Emission Controls Operation

(a) Wet Collector #2
The Wet Collector #2 for particulate emissions control shall be in operation and control emissions from the:

(1) Herman 1 Shakeout, and

(2) Herman 1 Sand Handling,

at all times when any of these processes is in operation.

(b) Wet Collector #3
The Wet Collector #3 for particulate emissions control shall be in operation and control emissions from the Herman 1 Sand Handling and Herman 2 Shakeout at all times when any of these processes are in operation.

(b) Baghouse #1
The Baghouse #1 for particulate emissions control shall be in operation and control emissions from the Herman 2 Sand Handling at all times when the Herman 2 Sand Handling is in operation.

(c) Baghouse #13
The Baghouse #13 for particulate emissions control shall be in operation and control emissions from the Herman 2 Sand Handling at all times when the Herman 2 Sand Handling is in operation.

(d) 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.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

(a) Within 180 days of the re-start of Herman 1 Shakeout & Sand Handling, the Permittee shall perform:

(1) PM testing, and

(2) PM_{10} testing

on the Wet Collector #2 (Stack C), using methods as approved by the Commissioner, in order to demonstrate compliance with paragraphs (b)(1&2), (c)(1&2), (d)(1&2), (e)(1&2), (f)(1&2), (g)(1&2), (h)(1&2), and (i)(1&2) of Condition D.3.1 – PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits.

(b) The Permittee shall perform:

(1) PM testing, and

(2) PM_{10} testing

on the:

(A) Wet Collector #3 (Stack B),

(B) Baghouse #1 (Stack F), and

(C) Baghouse #13 (Stack Y)

using methods as approved by the Commissioner, in order to demonstrate compliance with paragraphs (b)(1&2), (c)(1&2), (d)(1&2), (e)(1&2), (f)(1&2), (g)(1&2), (h)(1&2), and (i)(1&2) of Condition D.3.1 – PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits.

(c) The PM and PM_{10} tests shall be repeated at least once every five (5) years from the date of last valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.

(d) During the PM and PM_{10} tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.3.7 – Wet Collector Parametric Monitoring and Condition D.3.9 – Baghouse Parametric Monitoring.

(e) Testing shall be conducted in accordance with Section C – Performance Testing.

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

D.3.7 Visible Emissions Notations

(a) Visible Emission Notations:

(1) Visible emission notations of the:

(A) Herman 1 Shakeout – Wet Collector #2 exhaust stack (Stack C),

(B) Herman 1 Sand Handling – Wet Collector #2 exhaust stack (Stack C), and

(C) Herman 1 Sand Handling – Wet Collector #3 exhaust stack (Stack B)

shall be performed once per day during normal daylight operations when exhausting to the atmosphere and when the associated processes are in operation. A trained employee shall record whether emissions are normal or abnormal.

(2) Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006, visible emission notations of the:

(A) Herman 2 Pouring Station vent (Vent V-19),

(B) Herman 2 Castings Cooling process vents (Vents V-8 and V-9),

(C) Herman 2 Shakeout process – Wet Collector #3 exhaust stack (Stack B),

(D) Herman 2 Sand Handling process – Baghouse #1 exhaust stack (Stack F), and

(E) Herman 2 Sand Handling process – Baghouse #13 exhaust stack (Stack Y)

shall be performed once per shift during normal daylight operations when exhausting to the atmosphere and when the associated processes are in operation. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.8 Wet Collector Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Wet Collector #2 – Herman 1 Shakeout and Herman 1 Sand Handling
The Permittee shall record the pressure drop and flow rate of Wet Collector #2, at least once per day when the associated Herman 1 Shakeout and Herman 1 Sand Handling processes are in operation.

(1) When for any one reading, the pressure drop across Wet Collector #2 is below a minimum of 8 inches of water or a minimum pressure drop established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Wet Collector #2 is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(b) Wet Collector #3 – Herman 1 Sand Handling and Herman 2 Shakeout
The Permittee shall record the pressure drop and flow rate of or Herman 2 Shakeout process is in operation.

(1) When for any one reading, the pressure drop across Wet Collector #3 is below a minimum of 8 inches of water or a minimum pressure drop established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Wet Collector #3 is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(c) A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressures and flow rates 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.3.9 Wet Collector Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that wet collector failure has been observed, the failed wet collector 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).

D.3.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Baghouse #1 – Herman 2 Sand Handling
The Permittee shall record the pressure drop across Baghouse #1, at least once per day when the associated Herman 2 Sand Handling process is in operation. When for any one reading, the pressure drop across Baghouse #1 is outside the range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(b) Baghouse #13 – Herman 2 Sand Handling
The Permittee shall record the pressure drop across Baghouse #13, at least once per day when the associated Herman 2 Sand Handling process is in operation. When for any one reading, the pressure drop across Baghouse #13 is outside the range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(c) A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments 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.3.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.12 Record Keeping Requirements

(a) To document compliance with Condition D.3.1 – PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits, the Permittee shall maintain records of the combined amount of core and mold sand handled for the:

(1) Herman 1 Sand Handling,

(2) Herman 2 Sand Handling, and

(3) Herman 3 Sand Handling.

(b) To document compliance with Condition D.3.7 – Visible Emissions Notations:

(1) To document compliance with Condition D.3.7– Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet collector #2 and wet collector #3 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(2) Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006, the Permittee shall maintain records of the visible emission notations of the:

(A) Herman 2 Pouring Station vent (Vent V-19),

(B) Herman 2 Castings Cooling process vents (Vents V-8 and V-9),

(C) Herman 2 Shakeout process – Wet Collector #3 exhaust stack (Stack B),

(D) Herman 2 Sand Handling process – Baghouse #1 exhaust stack (Stack F), and

(E) Herman 2 Sand Handling process – Baghouse #13 exhaust stack (Stack Y)

once per shift and make such records available, upon request, to IDEM, OAQ.

(c) To document compliance with Condition D.3.8– Wet Collector Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet collector #2 and wet collector #3. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the process did not operate that day).

(d) To document compliance with Condition D.3.10– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #13. 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) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.3.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1 – PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(5) **Herman 3 Mold Line**
The volatile organic compound (VOC) emissions from the Herman 3 Mold line are reduced by one (1) Sonoperoxone® system (or an equivalent advanced oxidation system), sand system optimization, use of low VOC core resin binder materials, and automatic mold vent-off gas ignition.

The Sonoperoxone® system is common to:
- Herman 3 Pouring Station,
- Herman 3 Castings Cooling,
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

(a) One (1) Herman 3 Pouring Station, constructed in 1991, with a nominal throughput of 28 tons of iron per hour and 165 tons of mold and core sand per hour.

Emissions from the Herman 3 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-10.

(b) One (1) Herman 3 Castings Cooling process, constructed in 1991, and modified in 2004, with a nominal throughput of 28 tons of iron per hour, and 165 tons of mold and core sand per hour.

Emissions from the Herman 3 Castings Cooling process are captured, but uncontrolled and exhaust to the atmosphere through a vent, identified as Vent V-12.

(c) One (1) Herman 3 Shakeout process, constructed in 1991, with a nominal throughput of 28 tons of iron per hour, and 165 tons of mold and core sand per hour.

The particulate emissions from the Herman 3 Shakeout process are captured and controlled by:
- a wet collector, identified as Wet Collector #4, and exhaust through a stack, identified as Stack E; and
- a baghouse, identified as Baghouse #11 and exhaust through a stack, identified as Stack W.

Wet Collector #4 is common to:
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

Baghouse #11 is common to:
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

(d) One (1) Herman 3 Sand Handling process, constructed in 1991, with a nominal throughput of 165 tons of mold and core sand per hour.

The Herman 3 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

Particulate emissions from the Herman 3 Sand Handling process are captured and controlled by:

– a wet collector, identified as Wet Collector #1, and exhaust through a stack, identified as Stack D; and
– a wet collector, identified as Wet Collector #4, and exhaust through a stack, identified as Stack E; and
– a baghouse, identified as Baghouse #11, and exhaust through a stack, identified as Stack W.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

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

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

D.4.1 VOC PSD and BACT Requirements [326 IAC 2-2-3] [326 IAC 8-1-6] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

Pursuant to SSM 085-18009-00003, issued on December 9, 2003, and the requirements of 326 IAC 2-2-3 (PSD) and 326 IAC 8-1-6 (General Reduction Requirements for New Facilities), the Best Available Control Technology (BACT) shall consist of the following:

(a) Metal Throughput Limit
The amount of metal throughput to the Herman 3 Mold Line shall not exceed 90,578 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This limitation on the amount of metal throughput is the same as the metal throughput limit specified in Condition D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits.

(b) Sand Throughput Limits:

(1) The amount of sand throughput to the Herman 3 Mold Line shall not exceed 543,470 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This limitation on the amount of sand throughput is the same as the sand throughput limit specified in Condition D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits.

(2) The combined amount of core and mold sand handled for the:

(A) Herman 1 Sand Handling,

(B) Herman 2 Sand Handling, and

(C) Herman 3 Sand Handling

shall be limited to 1,127,516 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This core and mold sand limitation is for the Herman 1, Herman 2, and Herman 3 Sand Handling combined.

(c) VOC Limits and Standards

(1) The VOC emissions from the Herman 3 Pouring Station shall not exceed 0.163 pounds per ton of metal.

(2) The VOC emissions from the Herman 3 Castings Cooling process shall not exceed 0.36 pounds per ton of metal. The Department may revise this permit to adjust the VOC limitation based upon the results of the stack test required in Condition D.4.7. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.

(3) The combined VOC emissions from the Herman 3 Shakeout and Herman 3 Sand Handling operations shall not exceed 0.115 pounds per ton of metal and sand total.

This VOC limitation is for the Herman 3 Shakeout and Herman 3 Sand Handling combined.

(4) The VOC emissions from the Herman 3 Mold Line shall be reduced through the continuous use of the Sonoperoxone® system or an equivalent system, sand system optimization, low VOC core resin binder materials, and automatic mold vent-off gas ignition.

D.4.2 PM, PM_{10}, and Lead PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 085-18009-00003, issued on December 9, 2003, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable for PM, PM_{10}, and lead emissions, the following conditions shall apply:

(a) Metal Throughput Limit
The amount of metal throughput to the Herman 3 Mold Line shall not exceed 90,578 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This limitation on the amount of metal throughput is the same as the metal throughput limit specified in Condition D.4.1 – VOC PSD and BACT Requirements.

(b) Sand Throughput Limits:

(1) The amount of sand throughput to the Herman 3 Mold Line shall not exceed 543,470 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This limitation on the amount of sand throughput is the same as the sand throughput limit specified in Condition D.4.1 – VOC PSD and BACT Requirements.

(2) The combined amount of core and mold sand handled for the:

(A) Herman 1 Sand Handling,

(B) Herman 2 Sand Handling, and

(C) Herman 3 Sand Handling

shall be limited to 1,127,516 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

This core and mold sand limitation is for the Herman 1, Herman 2, and Herman 3 Sand Handling combined.

(c) Herman 3 Pouring (V-10)

(1) The PM emissions from the Herman 3 Pouring Station shall not exceed 0.1176 pounds per ton of metal throughput.

(2) The PM_{10} emissions from the Herman 3 Pouring Station shall not exceed 0.0524 pounds per ton of metal throughput.

(d) Herman 3 Castings Cooling (V-12)

(1) The PM emissions from the Herman 3 Castings Cooling process shall not exceed 0.2881 pounds per ton of metal throughput.

(2) The PM_{10} emissions from the Herman 3 Castings Cooling process shall not exceed 0.1959 pounds per ton of metal throughput.

(e) Herman 3 Shakeout (Stack E and Stack W)

(1) The PM emissions from the Herman 3 Shakeout process shall not exceed 0.034 pounds per ton of metal and sand throughput.

This PM limitation for the Herman 3 Shakeout is for Stack E and Stack W combined.

(2) The PM_{10} emissions from the Herman 3 Shakeout process shall not exceed 0.058 pounds per ton of metal and sand throughput.

This PM_{10} limitation for the Herman 3 Shakeout is for Stack E and Stack W combined.

(f) Herman 3 Sand Handling (Stack D and Stack W)

(1) The PM emissions from the Herman 3 Sand Handling process shall not exceed 0.034 pounds per ton of metal and sand throughput.

This PM limitation for the Herman 3 Sand Handling is for Stack D and Stack W combined.

(2) The PM_{10} emissions from the Herman 3 Sand Handling process shall not exceed 0.058 pounds per ton of metal and sand throughput.

This PM_{10} limitation for the Herman 3 Sand Handling is for Stack D and Stack W combined.

(g) Herman 3 Mold Line Lead Emissions
The combined lead emissions from the Herman 3 Mold Line shall not exceed 0.013 pounds per ton of metal throughput.

The conditions of this permit shall supersede the requirements of Operation Conditions #5 and #7 of CP 085-2141-00003, issued on December 12, 1991.

D.4.3 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that the following emission units:

(1) Herman 3 Pouring Station,

(2) Herman 3 Castings Cooling,

(3) Herman 3 Shakeout

are subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) for CO emissions. Therefore, the Permit Shield provided by Condition B.12 – Permit Shield of this permit does not apply to these emission units with regards to 326 IAC 2-2 (PSD) for CO emissions.

On or before December 31, 2007, the Permittee shall submit a complete PSD application for CO emissions from pouring, cooling, and shakeout operations. Once the application has been submitted, IDEM, OAQ will promptly reopen this permit to include detailed requirements necessary to comply with 326 IAC 2-2 (PSD) and a schedule for achieving compliance with such requirements.

D.4.4 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) Herman 3 Pouring (V-10)
The allowable particulate emission rate from the Herman 3 Pouring operation shall not exceed 58.1 pounds per hour when operating at a process weight rate of 193 tons per hour.

(b) Herman 3 Castings Cooling (V-12)
The allowable particulate emission rate from the Herman 3 Castings Cooling operation shall not exceed 58.1 pounds per hour when operating at a process weight rate of 193 tons per hour.

(c) Herman 3 Shakeout (Wet Collector #4, Stack E and Baghouse #11, Stack W)
The allowable particulate emission rate from the Herman 3 Shakeout and Herman 3 Sand Handling operation shall not exceed 58.1 pounds per hour when operating at a process weight rate of 193 tons per hour.

This PM limitation for the Herman 3 Shakeout is for Stack E and Stack W combined.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(d) Herman 3 Sand Handling (Wet Collector #1, Stack D, Wet Collector #4, Stack E and Baghouse #11, Stack W)
The allowable particulate emission rate from the Herman 3 Shakeout and Herman 3 Sand Handling operation shall not exceed 56.4 pounds per hour when operating at a process weight rate of 165 tons per hour.

This PM limitation for the Herman 3 Shakeout is for Stack E and Stack W combined.

Wet Collector #4 is common to:
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

Baghouse #11 is common to:
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

(e) The pounds per hour limitations were calculated with the following equation:

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

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Herman 3 Pouring,

(b) Herman 3 Castings Cooling,

(c) Herman 3 Shakeout,

(d) Herman 3 Sand Handling,

(e) Sonoperoxone® system or an equivalent system,

(f) Wet Collector #1,

(g) Wet Collector #4, and

(h) Baghouse #11.

Compliance Determination Requirements

D.4.6 Emission Controls Operation

(a) Wet Collector #1 – Herman 3 Sand Handling
The Wet Collector #1 for particulate emissions control shall be in operation and control emissions from the Herman 3 Sand Handling at all times when Herman 3 Sand Handling is in operation.

(b) Wet Collector #4 – Herman 3 Shakeout
The Wet Collector #4 for particulate control shall be in operation at all times and control emissions from the Herman 3 Shakeout process at all times when the Herman 3 Shakeout process is in operation.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(c) Baghouse #11 – Herman 3 Shakeout and Herman 3 Sand Handling

(1) The Baghouse #11 for particulate control shall be in operation and control emissions from the Herman 3 Shakeout and Herman 3 Sand Handling processes at all times when either of these processes are in operation.

(2) 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.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(d) Sonoperoxone® System or Equivalent System – Herman 3 Mold Line
The Sonoperoxone® system or an equivalent system for volatile organic compounds emissions control shall be in operation and control emissions from the Herman 3 Mold Line at all times when the Herman 3 Mold Line is in operation.

D.4.7 Testing Requirements [326 IAC 2-7-6(1),(6)]

(a) VOC Testing

(1) The Permittee shall perform VOC testing on the:

(A) Herman 3 Pouring,

(B) Herman 3 Castings Cooling,

(C) Herman 3 Shakeout, and

(D) Herman 3 Sand Handling

using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.4.1 – VOC PSD and BACT Requirements.

(2) During the VOC tests, the Permittee shall monitor and record those parameters required to be measured by D.4.15 – Parametric Monitoring of Sonoperoxone® System or Equivalent System.

(3) The VOC tests shall be repeated at least once every two and a half (2.5) years from the date of the last valid compliance demonstration.

(b) PM and PM_{10} Testing

(1) The Permittee shall perform PM and PM_{10} testing on the:

(A) Herman 3 Shakeout, and

(B) Herman 3 Sand Handling

using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits, and D.4.3 – Particulate Emission Limitation.

(2) During the PM and PM_{10} tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Conditions D.4.8 – Continuous Opacity Monitoring, D.4.11 – Wet Collector Parametric Monitoring, and D.4.13 – Baghouse Parametric Monitoring.

(3) The PM and PM_{10} tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration.

PM_{10} includes filterable and condensible PM_{10}.

(c) Lead Testing

(1) The Permittee shall perform lead testing on the:

(A) Herman 3 Pouring,

(B) Herman 3 Castings Cooling,

(C) Herman 3 Shakeout, and

(D) Herman 3 Sand Handling

using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits.

(2) During the lead tests, the Permittee shall monitor and record those parameters required to be measured by Conditions D.4.8 – Continuous Opacity Monitoring, D.4.11 – Wet Collector Parametric Monitoring, and D.4.13 – Baghouse Parametric Monitoring.

(3) The lead tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration.

(d) Testing shall be conducted in accordance with Section C – Performance Testing.

D.4.8 Continuous Opacity Monitoring [326 IAC 3-5] [326 IAC 2-2-3]

(a) Continuous Opacity Monitoring (COM)

(1) Pursuant to 326 IAC 2-2-3, upon startup of the Herman 3 Castings Cooling, a continuous monitoring system shall be installed, calibrated, maintained, and operated for measuring opacity from the Herman 3 Castings Cooling vent (V-12).

(2) The continuous monitoring systems shall meet the performance specifications of 326 IAC 3-5-2.

(b) Opacity – 10%
Pursuant to SSM 085-18009-00003, issued on December 9, 2003:

The Permittee shall take appropriate response steps in accordance with Section C – Response to Excursions or Exceedances, whenever the opacity exceeds 10% for three (3) consecutive six (6) minute averaging periods. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.9 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment.

(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor Emissions from the emission unit stack.

(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(3) Method 9 readings may be discontinued once a COMS is online.

(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5.

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

D.4.10 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Wet Collector #1 exhaust stack (Stack D),

(2) Wet Collector #4 exhaust stack (Stack E), and

(3) Baghouse #11 exhaust stack (Stack W)

shall be performed once per day during normal daylight operations when exhausting to the atmosphere and when the associated processes are in operation. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.4.11 Wet Collector Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Wet Collector #1 – Herman 3 Sand Handling
The Permittee shall record the pressure drop and flow rate across the Wet Collector #1, at least once per day, when the Herman 3 Sand Handling process is in operation.

(1) When for any one reading, the pressure drop across Wet Collector #1 is below a minimum of 8 inches of water or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Wet Collector #1 is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(b) Wet Collector #4 – Herman 3 Shakeout
The Permittee shall record the pressure drop and flow rate across Wet Collector #4, at least once per day, when the Herman 3 Shakeout process is in operation.

(1) When for any one reading, the pressure drop across Wet Collector #4 is below a minimum of 8 inches of water or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Wet Collector #4 is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

Wet Collector #4 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(c) A pressure reading or flow rate that is below the above mentioned minimums is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressures and flow rates 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.4.12 Wet Collector Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that wet collector failure has been observed, the failed wet collector 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).

D.4.13 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the Baghouse #11, at least once per day, when either of the following processes:

(1) Herman 3 Shakeout, or

(2) Herman 3 Sand Handling

are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Baghouse #11 is common to:
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

(b) The instruments 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.4.14 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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.

D.4.15 Parametric Monitoring of Sonoperoxone® System or Equivalent System [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Ultra-Sonic Power – Herman 3 Mold Line
The Permittee shall monitor and record the ultra-sonic power of the Sonoperoxone® system or equivalent system used in conjunction with the Herman 3 Mold Line, at least once per day when the Herman 3 Mold Line is in operation. When for any one reading, the ultra-sonic power is less than 1500 W or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. An ultra-sonic power reading that is below the above mentioned minimum is not a deviation from this permit.

(b) Ozone Generator Plasma Voltage – Herman 3 Mold Line
The Permittee shall monitor and record the ozone generator plasma voltage of the Sonoperoxone® system or equivalent system used in conjunction with the Herman 3 Mold Line, at least once per day when the Herman 3 Mold Line is in operation. When for any one reading, the ozone generator plasma voltage is less than 2700 V or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. An ozone generator plasma voltage reading that is below the above mentioned minimum is not a deviation from this permit.

(c) Hydrogen Peroxide Usage – Herman 3 Mold line
The Permittee shall monitor and record the hydrogen peroxide usage of the Sonoperoxone® system or equivalent system used in conjunction with the Herman 3 Mold Line, at least once per day when the Herman 3 Mold Line is in operation. When for any one reading, the hydrogen peroxide is less than 1 gallon per hour of muller operation, or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A peroxide usage reading that is below the above mentioned minimum is not a deviation from this permit. The instruments used for determining the ultra-sonic power, the ozone generator plasma voltage and the hydrogen peroxide usage 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) Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The Sonoperoxone® system is common to:

- Herman 3 Pouring Station,
- Herman 3 Castings Cooling,
- Herman 3 Shakeout, and
- Herman 3 Sand Handling.

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

D.4.16 Record Keeping Requirements

(a) To document compliance with Conditions D.4.1 – VOC PSD and BACT Requirements, and D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits, the Permittee shall maintain records of the amounts of metal and sand throughputs to the Herman 3 Mold Line.

(b) To document compliance with Conditions D.4.1 – VOC PSD and BACT Requirements, and D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits, the Permittee shall maintain records of the combined amount of core and mold sand handled for the:

(1) Herman 1 Sand Handling,

(2) Herman 2 Sand Handling, and

(3) Herman 3 Sand Handling.

(c) To document compliance with Condition D.4.8 – Continuous Opacity Monitoring and Section C – Opacity, the Permittee shall maintain records of opacity from the continuous opacity monitor on the Herman 3 Castings Cooling vent (V-12), including raw data and supporting information, for a minimum of five (5) years, and make such records available upon request to IDEM, OAQ.

(d) To document compliance with Condition D.4.10 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet collector #1, wet collector #4 and baghouse #11 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(e) To document compliance with Condition D.4.11– Wet Collector Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet collector #1 and wet collector #4. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the process did not operate that day).

(f) To document compliance with Condition D.4.13– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #11. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(g) To document compliance with Condition D.4.15 – Parametric Monitoring of Sonoperoxone® System or Equivalent System, the Permittee shall maintain records of the:

(1) ultra-sonic power,

(2) ozone generator plasma voltage, and

(3) hydrogen peroxide usage of the Sonoperoxone® system

and make such records available upon request to IDEM, OAQ.

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

D.4.17 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Conditions D.4.1 – VOC PSD and BACT Requirements, and D.4.2 – PM, PM_{10}, and Lead PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported.

(b) A quarterly summary of excess opacity emissions, as defined in 326 IAC 3-5-7, from the continuous monitoring system, shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.

(c) These reports submitted by the Permittee do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

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

(6) **Inclined Shakeout and Sort System**
One (1) Inclined Shakeout and Sort System, constructed prior to 1977, with a nominal throughput of 48.5 tons of iron per hour.

The particulate emissions from the Inclined Shakeout and Sort System are captured and controlled by a baghouse, identified as Baghouse #2, and exhaust through a stack, identified as Stack G.

(7) **Waste Sand Handling, Screening and Transport System**
One (1) Waste Sand Handling, Screening and Transport System, constructed prior to 1977, with a nominal throughput of 20 tons of waste sand per hour.

The Waste Sand Handling, Screening and Transport System consists of a rotary screen process, a magnetic separator, a silo, an elevated bin hopper, and a transport system.

The particulate emissions from the Waste Sand Handling, Screening and Transport system are captured and controlled by a baghouse, identified as Baghouse #9, and exhaust through a stack, identified as Stack R.

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

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

D.5.1 PM and PM_{10} PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(a) Inclined Shakeout and Sort System (Stack G)

(1) The PM emissions from the Inclined Shakeout and Sort system shall be limited to 0.072 pounds per ton of sand.

(2) The PM_{10} emissions from the Inclined Shakeout and Sort system shall be limited to 0.072 pounds per ton of sand.

(b) Waste Sand Handling, Screening and Transport Sand Throughput Limit (Stack R)

(1) The amount of sand throughput to the Waste Sand Handling, Screening and Transport system shall be limited to 112,752 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(2) The PM emissions from the Waste Sand Handling, Screening and Transport system shall be limited to 0.072 pounds per ton of sand.

(3) The PM_{10} emissions from the Waste Sand Handling, Screening and Transport system shall be limited to 0.011 pounds per ton of sand.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

D.5.2 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) Inclined Shakeout and Sort System (Baghouse #2, Stack G)
The allowable particulate emission rate from the Inclined Shakeout and Sort system, shall not exceed 44.3 pounds per hour when operating at a process weight rate of 48.5 tons of waste sand per hour.

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

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

$E = 55\ P^{0.11} - 40$ where E =rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Waste Sand Handling, Screening and Transport System (Baghouse #9, Stack R)
The allowable particulate emission rate from the Waste Sand Handling, Screening and Transport system, shall not exceed 30.5 pounds per hour when operating at a process weight rate of 20 tons of waste sand per hour.

The pounds per hour limitations were 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.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Inclined Shakeout and Sort system,

(b) Waste Sand Handling, Screening and Transport system,

(c) Baghouse #2, and

(d) Baghouse #9.

Compliance Determination Requirements

D.5.4 Emission Controls Operation

(a) Baghouse #2 – Inclined Shakeout and Sort System
The Baghouse #2 for particulate emissions control shall be in operation and control emissions from the Inclined Shakeout and Sort system at all times when the Inclined Shakeout and Sorting system is in operation.

(b) Baghouse #9 – Waste Sand Handling, Screening and Transport System
The Baghouse #9 for particulate emissions control shall be in operation and control emissions from the Waste Sand Transport at all times when the Waste Sand Handling, Screening and Transport system 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.

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

D.5.5 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Baghouse #2 exhaust stack (Stack G), and

(2) Baghouse #9 exhaust stack (Stack R),

shall be performed once per day during normal daylight operations when exhausting to the atmosphere and when the associated processes are in operation. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.5.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Baghouse #2 – Inclined Shakeout and Sort System
The Permittee shall record the pressure drop across Baghouse #2, at least once per day when the associated Inclined Shakeout and Sorting system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #2 is outside the range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(b) Baghouse #9 – Waste Sand Handling, Screening and Transport
The Permittee shall record the pressure drop across Baghouse #9, at least once per day when the associated Waste Sand Handling, Screening and Transport system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #9 is outside the range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(c) A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(d) 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.5.7 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.8 Record Keeping Requirements

(a) To document compliance with Condition D.5.1 – PM and PM_{10} PSD Minor Limits, the Permittee shall maintain records of the amount of sand throughput to the Waste Sand Handling, Screening and Transport system.

(b) To document compliance with Condition D.5.5 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse #2 and baghouse #9 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.5.6– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #2 and baghouse 9. 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) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.5.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 – PM and PM_{10} PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

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

(8) **Shot Blast Machines**

(a) Four (4) Shot Blast Machines:

(1) Three (3) Shot Blast Machines, identified as SB-1, SB-2, and SB-4, each constructed prior to 1977, each with a nominal capacity of 5.0 tons of iron castings per hour.

(2) One (1) Shot Blast Machine, identified as SB-3, constructed in 1981, with a nominal throughput of 5.0 tons of iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #3 that exhaust to a stack, identified as Stack H.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(b) Three (3) Shot Blast Machines:

(1) One (1) Shot Blast Machine, identified as SB-5, constructed prior to 1977, with a nominal throughput of 5.0 tons of iron castings per hour.

(2) One (1) Shot Blast Machine, identified as SB-6, constructed in 1981, with a nominal throughput of 5.0 tons of iron castings per hour.

(3) One (1) Shot Blast Machine, identified as SB-8, constructed in 1988, with a nominal throughput of 8.0 tons of iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #16 that exhaust through a stack, identified as Stack AG.

The Baghouse #16 is common to:
– Shot Blast Machines SB-5 and SB-6,
– Shot Blast Machine SB-8,
– Grinders GR-11 through GR-14, and
– Grinders GR-16 and GR-17.

(c) One (1) Shot Blast Machine, identified as SB-7, constructed in 1978 with a nominal throughput of 6.0 tons of iron castings per hour.

The particulate emissions from this Shot Blast Machine are captured and controlled by a baghouse, identified as Baghouse #6 that exhaust through a stack, identified as Stack K.

The Baghouse #6 is common to:
– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

(d) One (1) Shot Blast Machine, identified as SB-9, constructed in 1995 with a nominal throughput of 12.5 tons of iron castings per hour.

The particulate emissions from this Shot Blast Machine are captured and controlled by a baghouse, identified as Baghouse #12 that exhaust through a stack, identified as Stack X.

The Baghouse #12 is common to:
– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

(e) Two (2) Shot Blast Machines, permitted to be constructed in 2006, identified as SB-10 and SB-11, each with a nominal capacity of 2.5 tons of gray iron castings per hour.

The particulate emissions from these Shot Blast Machines are captured and controlled by a baghouse, identified as Baghouse #3 that exhaust through a stack, identified as Stack H.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(9) **Grinders**

(a) Twelve (12) Grinders, identified as GR-1 through GR-10, GR-29, and GR-30, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #15 that exhaust through a stack, identified as Stack AE.

The Baghouse #15 is common to:
– Grinders GR-1 through GR-10, and
– Grinders GR-29 and GR-30.

(b) Six (6) Grinders, identified as GR-11 through GR-14, GR-16, and GR-17, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #16 that exhaust through as stack, identified as Stack AG:

The Baghouse #16 is common to:
– Shot Blast Machines SB-5 and SB-6,
– Shot Blast Machine SB-8,
– Grinders GR-11 through GR-14, and
– Grinders GR-16 and GR-17.

(c) Eight (8) Grinders, identified as GR-19, GR-20, GR-23, GR-25, GR-26, and GR-34 through GR-36, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #6 that exhaust through a stack, identified as Stack K:

The Baghouse #6 is common to:

– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

(d) Four (4) Grinders, identified as GR-31 through GR-33; and GR-37, constructed prior to 1977, each with a nominal throughput of 4.0 tons of iron castings per hour.

The particulate emissions from these Grinders are captured and controlled by a baghouse, identified as Baghouse #12 that exhaust through a stack, identified as Stack X.

The Baghouse #12 is common to:

– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

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

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

D.6.1 PM, PM_{10}, and Lead PSD Minor Limits [326 IAC 2-2]

(a) Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(1) Shot Blast Machines Castings Limit
The amount of total finished castings from Shot Blast Machines (SB-1 through SB-9) shall not exceed 112,752 tons of castings finished per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(2) PM Limits
The PM emissions from each Shot Blast Machine (SB-1 through SB-9) shall be limited to 0.5066 pounds per ton of metal finished.

(3) PM_{10} Limits
The PM_{10} emissions from each Shot Blast Machine (SB-1 through SB-9) shall be limited to 0.5066 pounds per ton of metal finished.

(4) Lead Limits
The lead emissions from each Shot Blast Machine (SB-1 through SB-9) shall be limited to 0.0045 pounds per ton of metal finished.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

(b) Pursuant to SSM 085-22046-00003, issued on March 23, 2006, and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(1) The total PM emission rate from the two (2) Shot Blast Machines, identified as SB-10 and SB-11, controlled by Baghouse #3, shall not exceed 5.7 pounds per hour.

(2) The total PM_{10} emission rate from the two (2) Shot Blast Machines, identified as SB-10 and SB-11, controlled by Baghouse #3, shall not exceed 3.40 pounds per hour.

D.6.2 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) Shot Blast Machines

(1) The allowable particulate emission rate from each Shot Blast Machine (SB-1, SB-2, SB-3, SB-4, SB-5, and SB-6) shall not exceed 12.1 pounds per hour, when operating at a process weight rate of 5 tons of iron castings per hour.

(2) The allowable particulate emission rate from the Shot Blast Machine SB-7 shall not exceed 13.6 pounds per hour when operating at process weight rate of 6.0 tons of iron castings per hour.

(3) The allowable particulate emission rate from the Shot Blast Machine SB-8 shall not exceed 16.5 pounds per hour when operating at process weight rate of 8.0 tons of iron castings per hour.

(4) The allowable particulate emission rate from the Shot Blast Machine SB-9 shall not exceed 22.3 pounds per hour when operating at a process weight rate of 12.5 tons of iron castings per hour.

(5) The allowable particulate emission rate from each Shot Blast Machine (SB-10 and SB-11) shall not exceed 7.6 pounds per hour when operating at a process weight rate of 2.5 tons of iron castings per hour.

The Baghouse #3 (Stack AE) is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

The Baghouse #6 (Stack K) is common to:
– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

The Baghouse #12 (Stack X) is common to:
– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

The Baghouse #16 (Stack AG) is common to:
– Shot Blast Machines SB-5 and SB-6,

- Shot Blast Machine SB-8,
- Grinders GR-11 through GR-14, and
- Grinders GR-16 and GR-17.

(b) Grinders
The particulate matter (PM) emissions from each of these Grinders shall not exceed 10.4 pounds per hour when operating at a process weight rate of 4.0 tons of iron castings per hour each.

The Baghouse #6 (Stack K) is common to:
- Shot Blast Machine SB-7,
- Grinders GR-19 and GR-20,
- Grinder GR-23,
- Grinders GR-25 and GR-26, and
- Grinders GR-34 through GR-36.

The Baghouse #12 (Stack X) is common to:
- Shot Blast Machine SB-9,
- Grinders GR-31 through GR-33, and
- Grinder GR-37.

The Baghouse #15 (Stack H) is common to:
- Grinders GR-1 through GR-10, and
- Grinders GR-29 and GR-30.

The Baghouse #16 (Stack AG) is common to:
- Shot Blast Machines SB-5 and SB-6,
- Shot Blast Machine SB-8,
- Grinders GR-11 through GR-14, and
- Grinders GR-16 and GR-17.

(c) The pounds per hour limitations were calculated with the following equation:

Interpolation and extrapolation 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.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Shot Blast Machines SB-1 through SB-11,

(b) Grinders GR-1 through GR-14,

(c) GR-16 and GR-17,

(d) GR-19 and GR-20,

(e) GR-23,

(f) GR-25 and GR-26,

(e) GR-29 through GR-37,

(h) Baghouse #3,

(j) Baghouse #6,

(k) Baghouse #12,

(l) Baghouse #15, and

(m) Baghouse #16.

Compliance Determination Requirements

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period within 60 days of achieving the nominal production rate but no later than 180 days after start-up of Shot Blast Machines SB-10 and SB-11, in order to demonstrate compliance with Conditions D.6.1 – PM, PM_{10}, and Lead PSD Minor Limits, and D.6.2 – Particulate Emission Limitation, the Permittee shall perform PM and PM_{10} testing on the stack exhaust for Baghouse #3 when Shot Blast Machines SB-1 through SB-4, SB-10, and SB-11 are in operation utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C – Performance Testing.

D.6.5 Emission Controls Operation

(a) Baghouse #3
The Baghouse #3 for particulate emissions control shall be in operation and control emissions from the Shot Blast Machines, SB-1 through SB-4, SB-10, and SB-11 at all times that any one of these Shot Blast Machines is in operation.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(b) Baghouse #6

(1) The Baghouse #6 for particulate emissions control shall be in operation and control emissions from the Shot Blast Machine SB-7 at all times that Shot Blast Machine SB-7 is in operation.

(2) The Baghouse #6 for particulate emissions control shall be in operation and control emissions from the Grinders GR-19, GR-20, GR-23, GR-25, GR-26, and GR-34 through GR-36 at all times that any of these Grinders is in operation.

(c) Baghouse #12

(1) The Baghouse #12 for particulate emissions control shall be in operation and control emissions from the Shot Blast Machine SB-9 all times that Shot Blast Machine SB-9 is in operation.

(2) The Baghouse #12 for particulate emissions control shall be in operation and control emissions from the Grinders GR-31 through GR-33, and GR-37 all times that any of these Grinders is in operation.

The Baghouse #12 is common to:

– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

(d) Baghouse #15
The Baghouse #15 for particulate emissions control shall be in operation and control emissions from the Grinders GR-1 through GR-10, GR-29, and GR-30 at all times that any one of these Grinders is in operation.

(e) Baghouse #16

(1) The Baghouse #16 for particulate emissions control shall be in operation and control emissions from the Shot Blast Machines SB-5, SB-6, and SB-8 at all times that any one of these Shot Blast Machines is in operation.

(2) The Baghouse #16 for particulate emissions control shall be in operation and control emissions from the Grinders GR-11 through GR-14, GR-16, GR-17 at all times that any one of these Grinders is in operation.

(f) 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.

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

D.6.6 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Baghouse #3 exhaust stack (Stack H),

(2) Baghouse #6 exhaust stack (Stack K),

(3) Baghouse #12 exhaust stack (Stack X),

(4) Baghouse #15 exhaust stack (Stack AE), and

(5) Baghouse #16 exhaust stack (Stack AG),

shall be performed once per day during normal daylight operations when exhausting to the atmosphere and when the associated processes are in operation. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.6.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Baghouse #3
The Permittee shall record the pressure drop across Baghouse #3, at least once per day, when the associated Shot Blast Machines are in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #3 is outside the range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse #3 is common to:
– Shot Blast Machines SB-1 through SB-4, and
– Shot Blast Machines SB-10 and SB-11.

(b) Baghouse #6
The Permittee shall record the pressure drop across Baghouse #6, at least once per day when the associated Shot Blast Machines and Grinders are in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #6 is outside the range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse #6 is common to:
– Shot Blast Machine SB-7,
– Grinders GR-19 and GR-20,
– Grinder GR-23,
– Grinders GR-25 and GR-26, and
– Grinders GR-34 through GR-36.

(c) Baghouse #12
The Permittee shall record the pressure drop across Baghouse #12, at least once per day when the associated Shot Blast Machines and Grinders are in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #12 is outside the range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse #12 is common to:
– Shot Blast Machine SB-9,
– Grinders GR-31 through GR-33, and
– Grinder GR-37.

(d) Baghouse #15
The Permittee shall record the pressure drop across Baghouse #15, at least once per day when the associated Grinders are in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #15 is outside the range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse #15 is common to:
– Grinders GR-1 through GR-10, and
– Grinders GR-29 and GR-30.

(e) Baghouse #16
The Permittee shall record the pressure drop across Baghouse #16, at least once per day, when the associated Shot Blast Machines and Grinders are in operation when venting to the atmosphere. When for any one reading, the pressure drop across Baghouse #16 is outside the range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse #16 is common to:
– Shot Blast Machines SB-5 and SB-6,
– Shot Blast Machine SB-8,
– Grinders GR-11 through GR-14, and
– Grinders GR-16 and GR-17.

(f) A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(g) The instruments 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.6.8 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document compliance with Condition D.6.1 – PM, PM_{10}, and Lead PSD Minor Limits, the Permittee shall maintain records of the amount of total finished castings from Shot Blast Machines SB-1 through SB-9.

(b) To document compliance with Condition D.6.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse #3, baghouse #6, baghouse #12, baghouse #15 and baghouse #16 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.6.7– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #3, baghouse #6, baghouse #12, baghouse #15 and baghouse #16. 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) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.6.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.1 – PM, PM_{10}, and Lead PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.7 FACILITY OPERATION CONDITIONS

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

(10) **Paint Dip Tank**
One (1) Paint Dip Tank for painting processed iron castings, constructed prior to 1977, with a nominal throughput of 6.5 gallons of paint per hour.

Emissions from the Paint Dip Tank are uncontrolled.

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

SECTION D.8 FACILITY OPERATION CONDITIONS

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

(11) **Hot Box Core Making Line #6** (also known as Mercury Marine)
One (1) Hot Box Core Making Line #6, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #6 consists of the following emission units:

(a) One (1) Core Sand Handling Process, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Hot Box Bag Feeder, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Bag Feeder are uncontrolled.

(2) One (1) Hot Box Manual Elevator, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Manual Elevator are uncontrolled.

(3) One (1) natural gas fired Hot Box Sand Heater #6, constructed in 1991, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #6 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #6, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.
Emissions from the Hot Box Sand Mixer #6 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #1, constructed in 1991, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour. Emissions from the Hot Box Core Machine #1 are uncontrolled.

(12) **Hot Box Core Making Line #7**
One (1) Hot Box Core Making Line #7, constructed in 1996, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #7 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
- Pneumatic Sand Transporter #1,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper #7.

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(3) One (1) Hot Box Sand Hopper #7, constructed in 1996.

The particulate emissions from the Hot Box Sand Hopper #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(4) One (1) natural gas fired Hot Box Sand Heater #7, constructed in 1996, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #7, constructed in 1996, with a nominal throughput of 0.70 tons of sand per hour.
Emissions from the Hot Box Sand Mixer #7 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #26, constructed in 1995, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour.
Emissions from the Hot Box Core Machine #26 are uncontrolled.

(13) **Hot Box Core Making Line #9 (also referred to as Core making Line #9)**
One (1) Hot Box Core Making Line #9, constructed in 2002, with a nominal sand throughput of 18.0 tons of sand per hour. The Hot Box Core Making Line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 and modified in 2008, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, and one (1) natural gas fired Core Oven:

(1) One (1) natural gas fired Hot Box Core Machine #8, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #8 and natural gas fired Core Oven #9, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Hot Box Core Machine #8 are uncontrolled.

Emissions from the Core Wash Dip Tank #8 are uncontrolled.

(2) One (1) natural gas fired Hot Box Core Machine #9, with a maximum heat input

capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #9 and natural gas fired Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #9 are uncontrolled.

Emissions from the Core Wash Dip Tank #9 are uncontrolled.

(3) One (1) natural gas fired Hot Box Core Machine #10, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding Core Wash Dip Tank #10 and natural gas fired Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #10 are uncontrolled.

Emissions from the Core Wash Dip Tank #10 are uncontrolled.

The natural gas fired Hot Box Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour:

(d) One (1) electric Hot Box Core Oven #5.

Emissions from the Hot Box Core Oven #5 are uncontrolled.

Dalton intends to convert Line #9 from Hot Box to a Phenolic Urethane Core Making Line #9

Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

(14) One (1) Phenolic Urethane Core Making Line #9, initially constructed in 2002 as a Hot Box process and modified in 2008, with a nominal sand throughput of 18.0 tons of sand per hour. The Phenolic Urethane Core Making line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 and modified in 2008, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, constructed in 2002 and modified in 2008, three (3) Core Wash Dip Tanks and two (2) natural gas fired Core Ovens:

(1) One (1) Phenolic Urethane Core Machine #31and its corresponding Core Wash Dip Tank #31and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #31 are uncontrolled.

Emissions from the Core Wash Dip Tank #31 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #32 and its corresponding Core Wash Dip Tank #32 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #32 are uncontrolled.

Emissions from the Core Wash Dip Tank #32 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #33 and its corresponding Core Wash Dip Tank #33 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #33 are uncontrolled.

Emissions from the Core Wash Dip Tank #33 are uncontrolled.

(A) One (1) natural gas fired Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour;

The only new emission unit being constructed at the source is the Core Oven #10.

(B) One (1) natural gas fired Core Oven #10 has a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour;

(d) One (1) electric Phenolic Urethane Core Oven #5.

Emissions from the Phenolic Urethane Core Oven #5 are uncontrolled.

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

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

D.8.1 VOC and HAPs PSD Minor Limits [326 IAC 2-2] [326 IAC 8-1-6] [326 IAC 2-4.1-1]

(a) Pursuant to SSM 085-14027-00003, issued on February 22, 2002 and in order to render the requirements of 326 IAC 8-1-6 (New Facilities General Reduction Requirements), 326 IAC 2-4.1-1 (New Source Toxics Control), and 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply to the Hot Box Core making Line #9 until it is converted to the Phenolic Urethane Core Making Line #9:

(1) Resin Input limit
The amount of resin input to the Sand Mixer #9 shall be limited to 72,783.76 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Resin shall not exceed 3.5% by weight.

(2) Catalysts Input Limit
The amount of catalyst input to the Sand Mixer #9 shall be limited to 14,716.51 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Catalyst shall not exceed 7.7% by weight.

(3) Release Agent Usage Limit
The amount of release agent usage for the:

(1) Hot Box Core Machine #8,

(2) Hot Box Core Machine #9, and

(3) Hot Box Core Machine #10,

shall be limited to 6,828.31 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Release Agent shall not exceed 1.2% by weight.

This release agent limit is for the Hot Box Core Machine #8, Hot Box Core Machine #9, and Hot Box Core Machine #10 combined.

(4) Core Wash Input Limit
The amount of core wash input to the:

(1) Core Wash Dip Tank #8,

(2) Core Wash Dip Tank #9, and

(3) Core Wash Dip Tank #10

shall be limited to 39,207.57 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Core Wash shall not exceed 2.0% by weight.

This core wash limit is for the Core Wash Dip Tank #8, Core Wash Dip Tank #9, and Core Wash Dip Tank #10 combined.

(5) VOC Limit
In conjunction with the above limits and the emission ratio of 2.1215 pounds per ton of sand, the VOC PTE from the:

(1) Sand Mixer #9,

(2) Hot Box Core Machine #8,

(3) Hot Box Core Machine #9,

(4) Hot Box Core Machine #10,

(5) Core Wash Dip Tank #8,

(6) Core Wash Dip Tank #9, and

(7) Core Wash Dip Tank #10

shall be limited to less than 25 tons per year.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1, D.6.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.

(b) Pursuant to Significant Permit Modification 085-25675-00003 the following conditions shall apply to the Phenolic Urethane Core Making Line #9 (upon startup of the Core making Line #9 as a Phenolic Urethane Core Making);

(1) The amount of resin usage in the phenolic urethane core making line #9 operations shall not exceed 295,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The amount of catalyst usage in the phenolic urethane core making line #9 operations shall not exceed 32,935 pounds per twelve (12) consecutive month period, with compliance determined at the end of the month.

(3) The VOC emissions from the phenolic urethane core making operation shall not exceed 0.02904 pounds VOC per pounds of resin.

A summary of the above VOC emission limits are included in the following table:

Usage Limit (pounds per year)*	VOC Content Limit (lb VOC per lb material)	VOC Emission Limit (tons/yr)
295,000 (resin)	0.02904	4.35
32,935 (catalyst)	1.0	16.47
Total	--	20.74

Compliance with these limits, combined with potential VOC emissions from the core box cleaner, release agent, core wash, core oven #9 and core oven #10 will limit the VOC emissions from the phenolic urethane core making operation to less than 25 tons per year and render 326 IAC 8-1-6 (New Facilities, General Reduction requirements) not applicable to the Phenolic Urethane Core Making Line #9.

D.8.2 PM and PM_{10} PSD Minor Limits [326 IAC 2-2]

(a) Pursuant to SSM 085-14027-00003, issued on February 22, 2002 and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply to the Hot Box Core making Line #9 until it is converted to the Phenolic Urethane Core Making Line #9:

(1) PM Limit (Stack Z)
The amount of sand input to the Hot Box Sand Mixer #9 shall not exceed a rate of 18.0 tons per hour and 0.32 pounds of PM per ton of sand handled.

This sand input limit is equivalent to limited PTE PM of less than 24.50 tons per year. Thus, the requirements of 326 IAC 2-2 (PSD) are not applicable.

(2) PM_{10} Limit (Stack Z)
The amount of sand input to the Hot Box Sand Mixer #9 shall not exceed a rate of 18.0 tons per hour and 0.18 pounds of PM_{10} per ton of sand handled.

This sand input limit is equivalent to limited PTE PM_{10} of less than 14.50 tons per year. Thus, the requirements of 326 IAC 2-2 (PSD) are not applicable.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1, D.6.1, and D.8.1 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.

Compliance with the above mentioned PM limits also demonstrate compliance with the PM limits for Stack Z in Condition D.8.3 – Particulate Emission Limitation.

(b) Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and revised by SPM 085-25675-00003 the PM and PM10 emissions from the Phenolic Urethane Core Making Line #9 (Upon startup of Core Making Line #9 as a Phenolic Urethane Core making operation) shall be limited as follows:

(1) PM Limit (Stack Z)
The amount of throughput of sand to the Phenolic Urethane Core Making Line #9 shall not exceed 12,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) Total PM emissions from the Phenolic Urethane Core Making Line #9 shall not exceed 0.33 pounds PM per ton of sand throughput;

(3) PM10 Limit (Stack Z)
Total PM_{10} emissions from the Phenolic Urethane Core Making Line #9 shall not exceed 0.065 pound PM_{10} per ton of sand throughput;

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and D.6.1 will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (Hot Box core making Line #9 installation), and to this Significant Permit No. 085-25675-00003 (conversion of the Hot Box Core making Line #9 to Phenolic Urethane Core Making Line #9.

Compliance with the above mentioned PM limits also demonstrates compliance with the PM limits for Stack Z in Condition D.8.3 - Particulate Emission Limitations for Manufacturing Processes

D.8.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Hot Box Bag Feeder
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Hot Box Bag Feeder shall not exceed 3.2 pounds per hour when operating at a process weight rate of 1,400 pounds per hour (0.7 tons per hour).

(b) Hot Box Manual Elevator
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Hot Box Manual Elevator shall not exceed 3.2 pounds per hour when operating at a process weight rate of 1,400 pounds per hour (0.7 tons per hour).

(c) Hot Box Sand Mixer #6
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Hot Box Sand Mixer #6 shall not exceed 3.2 pounds per hour when operating at a process weight rate of 1,400 pounds per hour (0.7 tons per hour).

(d) Northeast (NE) Sand Silo (Bin Vent)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Northeast (NE) Sand Silo shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(e) Pneumatic Sand Transporter #1
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Pneumatic Sand Transporter #1 shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Pneumatic Sand Transporter #1 is common to:
– Northeast (NE) Sand Silo,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(f) Hot Box Sand Hopper #7 (Baghouse Z, Stack Z)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Hot Box Sand Hopper #7 shall not exceed 3.2 pounds per hour when operating at a process weight rate of 1,400 pounds per hour (0.7 tons per hour).

(g) Hot Box Sand Mixer #7
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Hot Box Sand Mixer #7 shall not exceed 3.2 pounds per hour when operating at a process weight rate of 1,400 pounds per hour (0.7 tons per hour).

(h) Sand Weigh Hopper #9 (Baghouse Z, Stack Z)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand Weigh Hopper #9 is 28.4 pounds per hour when operating at a process weight rate of 36,000 pounds per hour.

(i) Sand/Resin Mixer #9
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand/Resin Mixer #9 is 28.4 pounds per hour when operating at a process weight rate of 36,000 pounds per hour.

(j) The pounds per hour limitation was calculated with the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour was determined 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 greater than 60,000 pounds per hour was determined by use of the equation:

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.8.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.8.5 Emission Controls Operation

(a) The Northeast (NE) Sand Silo's integrated bin vent for particulate emissions control shall be in operation at all times that the Northeast (NE) Sand Silo is being loaded.

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(b) The Baghouse Z for particulate emissions control shall be in operation at all times that any of the following:

(1) Hot Box Sand Heater #6,

(2) Hot Box Sand Hopper #7,

(3) Hot Box Sand Heater #7,

(4) Sand Hopper #9, or

(5) Sand Heater #9,

are in operation.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(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.

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

D.8.6 Visible Emissions Notations

(a) Visible emission notations of the Baghouse Z exhaust stack (Stack Z) 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 in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.8.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the Baghouse Z, at least once per day, when the following are in operation:

(1) Hot Box Sand Heater #6,

(2) Hot Box Sand Hopper #7,

(3) Hot Box Sand Heater #7,

(4) Sand Hopper #9, and

(5) Sand Heater #9.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,

- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

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

D.8.8 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.9 Record Keeping Requirements

(a) To document compliance with Condition D.8.1(a) – VOC and HAPs PSD Minor Limits, the Permittee shall maintain records of the amounts of:

(1) resin,

(2) catalyst,

(3) release agent, and

(4) core wash

used in the Hot Box Core Making Line #9 until it is converted to Phenolic Urethane Core making Line #9. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the VOC content of the resin, catalyst, release agent, and core wash used.

(b) To document compliance with Condition D.8.1(b), the Permittee shall maintain records of the resin and catalyst usage for the Phenolic urethane Core making Line #9 for each month. The Permittee shall keep records of suppliers' data sheets and material safety data sheets (MSDS) necessary to verify the VOC contents of the resin, core wash, release agent and core box cleaner used. These recordkeeping requirements shall apply to the core making line #9 only after it has been converted to a Phenolic Urethane Core making Line.

(c) To document compliance with D.8.2(b) – PM and PM_{10} PSD Minor Limits, the Permittee shall maintain records of the amount of sand input to the Sand Mixer #9 on a monthly basis.

(d) To document compliance with Condition D.8.6, the Permittee shall maintain daily records of visible emission notations of the baghouse Z stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(e) To document compliance with Condition D.8.7, the Permittee shall maintain the daily records of the pressure drop across baghouse Z. 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).

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

D.8.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.8.1 – VOC and HAPs PSD Minor Limits and D8.2(b) - PM and PM_{10} PSD Minor Limits, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).1

SECTION D.9 FACILITY OPERATION CONDITIONS

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

(15) **Phenolic Urethane Core Making Line #1**
One (1) Phenolic Urethane Core Making Line #1, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #1 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #1.

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #1, constructed in 1989, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Phenolic Urethane Core Sand Hopper #1 is common to:
– Phenolic Urethane Core Making Lines #1 and #2.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(4) One (1) electric Phenolic Urethane Sand Heater #1, constructed in 1989, for heating sand, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(b) One (1) Phenolic Urethane Core Sand Mixer #1, constructed in 1989, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #1 are uncontrolled.

(c) Five (5) Core Machines, five (5) Core Wash Dip Tanks, and three (3) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #15, constructed in 1986, and its corresponding Core Wash Dip Tank #15 and natural gas fired Core Oven #1, constructed in 1986, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #15 are uncontrolled.

The natural gas fired Core Oven #1 is common to:
– Phenolic Urethane Core Machines #15 and #16.

(2) One (1) Phenolic Urethane Core Machine #16, constructed in 1986, and its corresponding Core Wash Dip Tank #16 and natural gas fired Core Oven #1, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #16 are uncontrolled.

The natural gas fired Core Oven #1 is common to:
– Phenolic Urethane Core Machines #15 and #16.

(3) One (1) Phenolic Urethane Core Machine #17, constructed in 1988, and its corresponding Core Wash Dip Tank #17 and natural gas fired Core Oven #17, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #17 are uncontrolled.

(4) One (1) Phenolic Urethane Core Machine #18, constructed in 1989, and its corresponding Core Wash Dip Tank #18 and natural gas fired Core Oven #2, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #18 are uncontrolled.

The natural gas fired Core Oven #2 is common to:
– Phenolic Urethane Core Machines #18 and #19.

(5) One (1) Phenolic Urethane Core Machine #19, constructed in 1989, and its corresponding Core Wash Dip Tank #19 and natural gas fired Core Oven #2, each with a nominal throughput of 7.0 tons sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #19 are uncontrolled.

The natural gas fired Core Oven #2 is common to:
– Phenolic Urethane Core Machines #18 and #19.

Each natural gas fired Core Oven on Phenolic Urethane Core Making Line #1 has a maximum heat input capacity of 2.0 million British thermal units (Btu) per hour.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #15, Phenolic Urethane Core Machine #16, Phenolic Urethane Core Machine #17, Phenolic Urethane Core Machine #18, and Phenolic Urethane Core Machine #19 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(16) **Phenolic Urethane Core Making Line #2**
One (1) Phenolic Urethane Core Making Line #2, with a nominal sand throughput of 3.0 tons of sand per hour. The Phenolic Urethane Core Making Line #2 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 3.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #1.

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #1, constructed in 1989, with particulate emissions controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Phenolic Urethane Core Sand Hopper #1 is common to:
– Phenolic Urethane Core Making Lines #1 and #2.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(b) One (1) Phenolic Urethane Core Sand Mixer #2, constructed in 1987, with a nominal throughput of 3.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #2 are uncontrolled.

(c) Five (5) Core Machines, five (5) Core Wash Dip Tanks, and one (1) portable electric Core Oven

(1) One (1) Phenolic Urethane Core Machine #10, constructed in 1968, and its corresponding Core Wash Dip Tank #10 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #10 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #11, constructed in 1968, and its corresponding Core Wash Dip Tank #11 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #11 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #12, constructed in 1978, and its corresponding Core Wash Dip Tank #12 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #12 are uncontrolled.

(4) One (1) Phenolic Urethane Core Machine #13, constructed in 1979, and its corresponding Core Wash Dip Tank #13 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #13 are uncontrolled.

(5) One (1) Phenolic Urethane Core Machine #14, constructed in 1992, and its corresponding Core Wash Dip Tank #14 and portable electric Core Oven #1, each with a nominal throughput of 3.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #14 are uncontrolled.

The portable electric Core Oven #1 is common to:
- Phenolic Urethane Core Machines #10 through #14.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #10, Phenolic Urethane Core Machine #11, Phenolic Urethane Core Machine #12, Phenolic Urethane Core Machine #13, and Phenolic Urethane Core Machine #14 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(17) **Phenolic Urethane Core Making Line #3**
One (1) Phenolic Urethane Core Making Line #3, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #3 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
- Phenolic Urethane Core Making Lines #3 and #5, and
- Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) electric Phenolic Urethane Sand Heater #3, constructed in 1980.

The particulate emissions from the Phenolic Urethane Sand Heater #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Phenolic Urethane Core Sand Mixer #3, constructed in 1980, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #3 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, and two (2) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #2, constructed in 1982, and its corresponding Core Wash Dip Tank #2 and natural gas fired Core Oven #3, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #2 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #4, constructed in 1981, and its corresponding Core Wash Dip Tank #4 and natural gas fired Core Oven #4, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #4 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #5, constructed in 1968, and its corresponding Core Wash Dip Tank #5 and natural gas fired Core Oven #4, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #5 are uncontrolled.

Each natural gas fired Core Oven on Phenolic Urethane Core Making Line #3 has a maximum heat input capacity of 2.0 million British thermal units (Btu) per hour.

The natural gas fired Core Oven #4 is common to:
- Phenolic Urethane Core Machines #4 and #5.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #2, Phenolic Urethane Core Machine #4, and Phenolic Urethane Core Machine #5 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(18) **Phenolic Urethane Core Making Line #4**
One (1) Phenolic Urethane Core Making Line #4, with a nominal sand throughput of 7.0 tons of sand per hour. The Phenolic Urethane Core Making Line #4 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 7.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #4.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #4, constructed in 1986.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #4 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) electric Phenolic Urethane Sand Heater #4, constructed in 1986:

The particulate emissions from the Phenolic Urethane Sand Heater #4 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Phenolic Urethane Core Sand Mixer #4, constructed in 1986, with a nominal throughput of 7.0 tons of sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #4 are uncontrolled.

(c) Four (4) Core Machines, one (1) Core Wash Dip Tank, and one (1) natural gas fired Core Oven

(1) One (1) Phenolic Urethane Core Machine #7, constructed in 1986, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(2) One (1) Phenolic Urethane Core Machine #8, constructed in 1968, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(3) One (1) Phenolic Urethane Core Machine #9, constructed in 1968, with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

(4) One (1) Phenolic Urethane Core Machine #25, constructed in 1993, that contains two (2) core boxes that cannot be operated simultaneously due to having only one blow head for blowing sand into the box, and its corresponding Core Wash Dip Tank #25 and natural gas fired Core Oven #25, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #25 are uncontrolled.

The natural gas fired Core Oven #25 has a maximum heat input capacity of at 800,000 British thermal units (Btu) per hour.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #7, Phenolic Urethane Core Machine #8, Phenolic Urethane Core Machine #9, and Phenolic Urethane Core Machine #25 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(19) **Phenolic Urethane Core Making Line #5**
One (1) Phenolic Urethane Core Making Line #5, with a nominal sand throughput of 5.0 tons of sand per hour. The Phenolic Urethane Core Making Line #5 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 5.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Phenolic Urethane Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
- Phenolic Urethane Core Making Lines #3 and #5, and
- Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(4) One (1) natural gas fired Phenolic Urethane Sand Heater #5, constructed in 1992, with a maximum heat input capacity of 192,000 British thermal units (Btu) per hour.

The particulate emissions from the Phenolic Urethane Sand Heater #5 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(b) One (1) Phenolic Urethane Core Sand Mixer #5, constructed in 1992, with a nominal throughput of 5.0 tons of core sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #5 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, and one (1) natural gas fired Core Oven

(1) One (1) Phenolic Urethane Core Machine #21, constructed in 1992, and its corresponding Core Wash Dip Tank #21 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #21 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #22, constructed in 1992, and its corresponding Core Wash Dip Tank #22 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #22 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #28, constructed in 1998, and its corresponding Core Wash Dip Tank #28 and natural gas fired Core Oven #8, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #28 are uncontrolled.

The natural gas fired Core Oven on Phenolic Urethane Core Making Line #5 has a maximum heat input capacity of 2.4 million British thermal units (Btu) per hour.

The natural gas fired Core Oven #8 is common to:
– Phenolic Urethane Core Machines #21 and #22, and
– Phenolic Urethane Core Machine #28.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of the Phenolic Urethane Core Machine #21, Phenolic Urethane Core Machine #22, and Phenolic Urethane Core Machine #28 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(20) **Phenolic Urethane Core Making Line #8**
One (1) Phenolic Urethane Core Making Line #8, with a nominal sand throughput of 5.0 tons of sand per hour. The Phenolic Urethane Core Making Line #8 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 5.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Phenolic Urethane Core Sand Hopper #8.

The Pneumatic Sand Transporter #1 is common to:
– Northeast (NE) Sand Silo,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(3) One (1) Phenolic Urethane Core Sand Hopper #8, constructed in 1997:

The particulate emissions from the Phenolic Urethane Core Sand Hopper #8 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(4) One (1) natural gas fired Phenolic Urethane Sand Heater #8, constructed in 1997, with a maximum heat input capacity of 192,000 British thermal units (Btu) per hour.

The particulate emissions from the Phenolic Urethane Sand Heater #8 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– Sand Hopper #9,
– Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(b) One (1) Phenolic Urethane Core Sand Mixer #8, constructed in 1997, with a nominal throughput of 5.0 tons of core sand per hour and 0.185 pounds of VOC (from resin) per ton of sand.

Emissions from the Phenolic Urethane Core Sand Mixer #8 are uncontrolled.

(c) Two (2) Core Machines, two (2) Core Wash Dip Tank, and two (2) natural gas fired Core Ovens

(1) One (1) Phenolic Urethane Core Machine #1, constructed in 1982, and its corresponding Core Wash Dip Tank #1 and natural gas fired Core Oven #27, each with a nominal throughput of 7.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #1 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #27, constructed in 1996, and its corresponding Core Wash Dip Tank #27 and natural gas fired Core Oven #27, each with a nominal throughput of 5.0 tons of sand per hour, 0.541 pounds of VOC (from resin) per ton of sand, and 2.75 pounds of catalyst per ton of sand.

Emissions from the Core Wash Dip Tank #27 are uncontrolled.

The natural gas fired Core Oven #27 has a maximum heat input capacity of 1.6 million British thermal units (Btu) per hour and is common to:
– Phenolic Urethane Core Machine #1, and
– Phenolic Urethane Core Machine #27.

The catalyst used is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the catalyst captured at the core box of Phenolic Urethane Core Machine #1 and Phenolic Urethane Core Machine #27 are controlled by an acid scrubber, identified as Acid Scrubber AF, exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

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

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

D.9.1 VOC PSD BACT Requirements [326 IAC 2-2] [326 IAC 8-1-6]

Pursuant to 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 (New Facilities General Reduction Requirements), the following requirements shall apply:

(a) Sand Throughput Limit

(1) The amount of sand throughput to the Phenolic Urethane Core Making Line #1 shall not exceed 17,922 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(2) The amount of sand throughput to the Phenolic Urethane Core Making Line #2 shall not exceed 4,656 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(3) The amount of sand throughput to the Phenolic Urethane Core Making Line #3 shall not exceed 23,200 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(4) The amount of sand throughput to the Phenolic Urethane Core Making Line #4 shall not exceed 12,910 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(5) The amount of sand throughput to the Phenolic Urethane Core Making Line #5 shall not exceed 2,383 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(6) The amount of sand throughput to the Phenolic Urethane Core Making Line #8 shall not exceed 6,350 tons per 12 consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

(b) Mixers
The VOC emissions from each of the following mixers shall not exceed 0.185 pounds per ton of sand:

(1) Phenolic Urethane Core Sand Mixer #1,

(2) Phenolic Urethane Core Sand Mixer #2,

(3) Phenolic Urethane Core Sand Mixer #3,

(4) Phenolic Urethane Core Sand Mixer #4,

(5) Phenolic Urethane Core Sand Mixer #5, and

(6) Phenolic Urethane Core Sand Mixer #8.

(c) Core Machines

(1) The VOC emissions from the catalyst (DMIPA) captured at the following core machines shall be controlled by Acid Scrubber AF:

(A) Phenolic Urethane Core Making Line #1
Phenolic Urethane Core Machine #15, Phenolic Urethane Core Machine #16, Phenolic Urethane Core Machine #17, Phenolic Urethane Core Machine #18, and Phenolic Urethane Core Machine #19

(B) Phenolic Urethane Core Making Line #2
Phenolic Urethane Core Machine #10, Phenolic Urethane Core Machine #11, Phenolic Urethane Core Machine #12, Phenolic Urethane Core Machine #13, and Phenolic Urethane Core Machine #14

(C) Phenolic Urethane Core Making Line #3
Phenolic Urethane Core Machine #2, Phenolic Urethane Core Machine #4, and Phenolic Urethane Core Machine #5

(D) Phenolic Urethane Core Making Line #4
Phenolic Urethane Core Machine #7, Phenolic Urethane Core Machine #8, Phenolic Urethane Core Machine #9, and Phenolic Urethane Core Machine #25

(E) Phenolic Urethane Core Making Line #5
Phenolic Urethane Core Machine #21, Phenolic Urethane Core Machine #22, and Phenolic Urethane Core Machine #27

(F) Phenolic Urethane Core Making Line #8
Phenolic Urethane Core Machine #1, and Phenolic Urethane Core Machine #28

The catalyst capture efficiency of Acid Scrubber AF shall be at least 89.3%.

The catalyst control efficiency of Acid Scrubber AF shall be at least 99%.

The overall catalyst control efficiency of Acid Scrubber AF shall be at least 88.4%.

(2) The VOC emissions from the catalysts (after the Acid Scrubber AF) shall not exceed 0.319 pounds per ton of sand.

(3) The VOC content of the core wash shall be limited to less than 0.12 pounds per gallon. The amount of annual usage of core wash shall not exceed 117,260 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. These usage limits are required to limit the potential to emit of VOC to less than 0.20 pounds per ton of sand.

(4) The VOC emissions from the core machines resins shall not exceed 0.541 pounds per ton of sand.

(5) The VOC content of the core machines cleaner shall be limited to less than 8.17 pounds per gallon. The amount of annual usage of core machines cleaner shall not exceed 671 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. These usage limits are required to limit the potential to emit of VOC to less than 0.144 pounds per ton of sand.

(6) The VOC content of the core release agent shall be limited to less than 6.15 pounds per gallon. The amount of annual usage of core release agent shall not exceed 1150 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. These usage limits are required to limit the potential to emit of VOC to less than 0.105 pounds per ton of sand.

D.9.2 Particulate Emission Limitation [326 IAC 6-3-2]

(a) Northeast (NE) Sand Silo (Bin Vent)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Northeast (NE) Sand Silo shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,

- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(b) South (S) Sand Silo (Bin Vent)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the South (S) Sand Silo shall not exceed 41.3 pounds per hour when operating at a process weight rate of 70,000 pounds of sand per hour (35.0 tons per hour).

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(c) Pneumatic Sand Transporter #1
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Pneumatic Sand Transporter #1 shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(d) Pneumatic Sand Transporter #2
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Pneumatic Sand Transporter #2 shall not exceed 41.3 pounds per hour when operating at a process weight rate of 70,000 pounds of sand per hour (35.0 tons per hour).

The Pneumatic Sand Transporter #2 is common to:
- South (S) Sand Silo,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(e) Phenolic Urethane Core Sand Hopper #1 (Baghouse Q, Stack Q)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Hopper #1 shall not exceed 19.2 pounds per hour when operating at a process weight rate of 20,000 pounds per hour (10.0 tons per hour).

The Phenolic Urethane Core Sand Hopper #1 is common to:
- Phenolic Urethane Core Making Lines #1 and #2.

(f) Phenolic Urethane Core Sand Hopper #3 (Baghouse U, Stack U)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand Hopper #3 shall not exceed 28.4 pounds per hour when operating at a process weight rate of 36,000 pounds per hour (18.0 tons per hour).

The Phenolic Urethane Core Sand Hopper #3 is common to:
- Phenolic Urethane Core Making Lines #3 and #5, and
- Air Set Core Making Process.

(g) Phenolic Urethane Core Sand Hopper #4 (Baghouse U, Stack U)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Hopper #4 shall not exceed 15.1 pounds per hour when operating at a process weight rate of 14,000 pounds per hour (7.0 tons per hour).

(h) Phenolic Urethane Core Sand Hopper #8 (Baghouse Z, Stack Z)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Hopper #8 shall not exceed 12.1 pounds per hour when operating at a process weight rate of 10,000 pounds per hour (5.0 tons per hour).

(i) Phenolic Urethane Core Sand Mixer #1
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #1 shall not exceed 15.1 pounds per hour when operating at a process weight rate of 14,000 pounds per hour (7.0 tons per hour).

(j) Phenolic Urethane Core Sand Mixer #2
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #2 shall not exceed 8.6 pounds per hour when operating at a process weight rate of 6,000 pounds per hour (3.0 tons per hour).

(k) Phenolic Urethane Core Sand Mixer #3
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #3 shall not exceed 15.1 pounds per hour when operating at a process weight rate of 14,000 pounds per hour (7.0 tons per hour).

(l) Phenolic Urethane Core Sand Mixer #4
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #4 shall not exceed 15.1 pounds per hour when operating at a process weight rate of 14,000 pounds per hour (7.0 tons per hour).

(m) Phenolic Urethane Core Sand Mixer #5
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #5 shall not exceed 12.1 pounds per hour when operating at a process weight rate of 10,000 pounds per hour (5.0 tons per hour).

(n) Phenolic Urethane Core Sand Mixer #8
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Phenolic Urethane Core Sand Mixer #8 shall not exceed 12.1 pounds per hour when operating at a process weight rate of 10,000 pounds per hour (5.0 tons per hour).

(o) The pounds per hour limitations were calculated with the following equations:

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

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

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) South (S) Sand Silo Bin Vent,

(b) Pneumatic Sand Transporter #2,

(c) Phenolic Urethane Core Sand Hopper #1,

(d) Phenolic Urethane Sand Heater #1,

(e) Baghouse Q,

(f) Phenolic Urethane Core Sand Mixer #1,

(g) Phenolic Urethane Core Machine #15,

(h) Core Wash Dip Tank #15,

(i) Phenolic Urethane Core Machine #16,

(j) Core Wash Dip Tank #16,

(k) Natural gas fired Core Oven #1,

(l) Phenolic Urethane Core Machine #17,

(m) Core Wash Dip Tank #17,

(n) Natural gas fired Core Oven #17,

(o) Phenolic Urethane Core Machine #18,

(p) Core Wash Dip Tank #18,

(q) Phenolic Urethane Core Machine #19,

(r) Core Wash Dip Tank #19,

(s) Natural gas fired Core Oven #2,

(t) Phenolic Urethane Core Sand Mixer #2,

(u) Phenolic Urethane Core Machine #10,

(v) Core Wash Dip Tank #10,

(w) Phenolic Urethane Core Machine #11,

(x) Core Wash Dip Tank #11,

(y) Phenolic Urethane Core Machine #12,

(z) Core Wash Dip Tank #12,

(aa) Phenolic Urethane Core Machine #13,

(bb) Core Wash Dip Tank #13,

(cc) Phenolic Urethane Core Machine #14,

(dd) Core Wash Dip Tank #14,

(ee) Electric Core Oven #1,

(ff) Phenolic Urethane Core Sand Hopper #3,

(gg) Phenolic Urethane Sand Heater #3,

(hh) Baghouse U,

(ii) Phenolic Urethane Core Sand Mixer #3,

(jj) Phenolic Urethane Core Machine #2,

(kk) Core Wash Dip Tank #2,

(ll) Natural gas fired Core Oven #3,

(mm) Phenolic Urethane Core Machine #4,

(nn) Core Wash Dip Tank #4,

(oo) Phenolic Urethane Core Machine #5,

(pp) Core Wash Dip Tank #5,

(qq) Natural gas fired Core Oven #4,

(rr) Phenolic Urethane Core Sand Hopper #4,

(ss) Phenolic Urethane Sand Heater #4,

(tt) Phenolic Urethane Core Sand Mixer #4,

(uu) Phenolic Urethane Core Machine #7,

(vv) Phenolic Urethane Core Machine #8,

(ww) Phenolic Urethane Core Machine #9,

(xx) Phenolic Urethane Core Machine #25,

(yy) Core Wash Dip Tank #25,

(zz) Natural gas fired Core Oven #25,

(aaa) Phenolic Urethane Sand Heater #5,

(bbb) Baghouse Z,

(ccc) Phenolic Urethane Core Sand Mixer #5,

(ddd) Phenolic Urethane Core Machine #21,

(eee) Core Wash Dip Tank #21,

(ddd) Phenolic Urethane Core Machine #22,

(eee) Core Wash Dip Tank #22,

(ddd) Phenolic Urethane Core Machine #28,

(eee) Core Wash Dip Tank #28,

(fff) Natural gas fired Core Oven #8,

(ggg) Northeast (NE) Sand Silo Bin Vent,

(hhh) Pneumatic Sand Transporter #1,

(iii) Phenolic Urethane Core Sand Hopper #8,

(jjj) Phenolic Urethane Sand Heater #8,

(kkk) Phenolic Urethane Core Sand Mixer #8,

(lll) Phenolic Urethane Core Machine #1,

(mmm) Core Wash Dip Tank #1,

(nnn) Phenolic Urethane Core Machine #27,

(ooo) Core Wash Dip Tank #27,

(ppp) Natural gas fired Core Oven #27, and

(qqq) Acid Scrubber AF.

Compliance Determination Requirements

D.9.4 Emission Controls Operation

(a) The Northeast (NE) Sand Silo's integrated bin vent for particulate emissions control shall be in operation at all times that the Northeast (NE) Sand Silo is being loaded.

The Northeast (NE) Sand Silo is common to:
- Pneumatic Sand Transporter #1,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and

– Large Core Production Cell Lines #10 and #11.

(b) The South (S) Sand Silo's integrated bin vent for particulate emissions control shall be in operation at all times that the South (S) Sand Silo is being loaded.

The South (S) Sand Silo is common to:
- Pneumatic Sand Transporter #2,
- Phenolic Urethane Core Making Lines #1 through #5, and
- Air Set Core Making Process.

(c) Baghouse Q
The Baghouse Q for particulate emissions control shall be in operation at all times that any of the following:

(1) Phenolic Urethane Core Sand Hopper #1, and

(2) Phenolic Urethane electric Sand Heater #1,

are in operation.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(d) Baghouse U
The Baghouse U for particulate emissions control shall be in operation at all times that any of the following:

(1) Phenolic Urethane Core Sand Hopper #3,

(2) Phenolic Urethane Core Sand Hopper #4,

(3) Phenolic Urethane electric Sand Heater #3, and

(4) Phenolic Urethane electric Sand Heater #4,

are in operation.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(e) The Baghouse Z for particulate emissions control shall be in operation at all times that any of the following:

(1) Phenolic Urethane Core Sand Hopper #3,

(2) Phenolic Urethane Core Sand Hopper #8,

(3) Phenolic Urethane natural gas fired Sand Heater #5, and

(4) Phenolic Urethane electric Sand Heater #8

are in operation.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(f) 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.

(g) The Acid Scrubber AF shall be in operation at all times when any of the following:

(1) Phenolic Urethane Core Machine #1,

(2) Phenolic Urethane Core Machine #2,

(3) Phenolic Urethane Core Machine #4,

(4) Phenolic Urethane Core Machine #5,

(5) Phenolic Urethane Core Machines #7 through #19,

(6) Phenolic Urethane Core Machine #21,

(7) Phenolic Urethane Core Machine #22,

(8) Phenolic Urethane Core Machine #25,

(9) Phenolic Urethane Core Machine #27, and

(10) Phenolic Urethane Core Machine #28,

are in operation.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

D.9.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

Within 180 days after the issuance of this permit, the Permittee shall perform VOC testing on the Acid Scrubber AF exhaust stack (Stack AF) using methods as approved by the Commissioner, in order to demonstrate compliance with condition D.9.1 – VOC PSD and BACT Requirements. The VOC tests shall be repeated at least once every two and a half (2.5) years from the date of the last valid compliance demonstration. During the VOC tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.9.7 – Scrubber Parametric Monitoring.

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

D.9.6 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust,

(2) South (S) Sand Silo's integrated bin vent stack exhaust,

(3) Baghouse Q exhaust stack (Stack Q),

(4) Baghouse U exhaust stack (Stack U),

(5) Baghouse Z exhaust stack (Stack Z),

(6) Acid Scrubber AF exhaust stack (Stack AF), and

shall be performed once per day during normal daylight operations when any of the associated core sand hopper and core machines is in operation and 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 in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.9.7 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop, flow rate, and pH of the Acid Scrubber AF, at least once per day when any of the associated core machines is in operation and venting to the atmosphere.

(1) When for any one reading, the pressure drop across Acid Scrubber AF is below a minimum of 34 inches of water or a minimum pressure drop established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Acid Scrubber AF is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(3) When for any one reading, the pH across Acid Scrubber AF is below a minimum of 4.5 or a minimum pH established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

A pressure drop, flow rate, or pH reading that is below the above mentioned minimums is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(b) The instrument used for determining the pressure and flow rate 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.9.8 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed, the failed scrubber 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).

D.9.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Baghouse Q
The Permittee shall record the pressure drop across the Baghouse Q, at least once per day, when the following are in operation:

(1) Phenolic Urethane Core Sand Hopper #1,

(2) Phenolic Urethane Sand Heater #1.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,

- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(b) Baghouse U
The Permittee shall record the pressure drop across the Baghouse U, at least once per day, when the following are in operation:

(1) Phenolic Urethane Core Sand Hopper #3,

(2) Phenolic Urethane Core Sand Hopper #4,

(3) Phenolic Urethane Sand Heater #3, and

(4) Phenolic Urethane Sand Heater #4.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse U is common to:
- Phenolic Urethane Core Sand Hoppers #3 and #4, and
- Phenolic Urethane Sand Heaters #3 and #4.

(c) Baghouse Z
The Permittee shall record the pressure drop across the Baghouse Z, at least once per day, when any of the following are in operation:

(1) Phenolic Urethane Core Sand Hopper #8,

(2) Phenolic Urethane Sand Heater #5, and

(3) Phenolic Urethane Sand Heater #8.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- Sand Hopper #9,
- Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(d) A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(e) 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.9.10 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.9.11 Record Keeping Requirements

(a) To document compliance with Condition D.9.1 – VOC PSD and BACT Requirements, the Permittee shall maintain records of the amount of sand throughput for each core making line.

(b) To document compliance with Condition D.9.1 – VOC PSD and BACT Requirements, the Permittee shall maintain records of the VOC content and usage amounts of:

(1) core wash,

(2) core machines cleaner, and

(3) core release agent

for each core making line. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the VOC content of the core wash, core machines cleaner, and core release agent used.

(c) To document compliance with Condition D.9.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse Q, baghouse U, baghouse Z and acid scrubber AF stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) To document compliance with Condition D.9.7– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the acid scrubber AF. The Permittee shall include in its daily record when the pH, pressure drop and flow rate reading are not taken and the reason for the lack of pH, pressure drop and flow rate readings, (e.g. the process did not operate that day).

(e) To document compliance with Condition D.9.9– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse Q, baghouse U and baghouse Z. 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).

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

D.9.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.9.1 – VOC PSD and BACT Requirements, shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.10 FACILITY OPERATION CONDITIONS

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

(21) **Shell Core Making Process**
One (1) Shell Core Sand Making Process, with a nominal sand throughput of 0.8 tons of sand per hour. The Shell Core Sand Making Process consists of the following emission units:

(a) One (1) Shell Core Sand Handling Process, with a nominal sand throughput of 0.8 tons of sand per hour:

(1) North (N) Shell Sand Silo and South (S) Shell Sand Silo, each constructed prior to 1977, with a capacity to provide coated sand to the two (2) Shell Core Sand Hoppers.

Emissions from the North (N) Shell Sand Silo and South (S) Shell Sand Silo are uncontrolled.

(2) Two (2) Shell Core Sand Hoppers, identified as Shell Core Sand Hopper #1 and Shell Core Sand Hopper #2, constructed prior to 1977, with a capacity to provide shell core sand to all Shell Core Machines.

Emissions from the Shell Core Sand Hoppers are uncontrolled.

(b) Three (3) Core Machines, and Three (3) Core Wash Dip Tanks

(1) One (1) Shell Core Machine #6, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #6, with a nominal throughput of 0.2 tons of sand per hour.

Emissions from the Shell Core Machine #6 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #6 are uncontrolled.

(2) One (1) Shell Core Machine #7, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #7, with a nominal throughput of 0.3 tons of sand per hour.

Emissions from the Shell Core Machine #7 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #7 are uncontrolled.

(3) One (1) Shell Core Machine #8, constructed prior to 1977, and its corresponding Shell Core Wash Dip Tank #8, with a nominal throughput of 0.3 tons of sand per hour.

Emissions from the Shell Core Machine #8 are uncontrolled.

Emissions from the Shell Core Wash Dip Tank #8 are uncontrolled.

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

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

D.10.1 Particulate Emission Limitation [326 IAC 6-3-2]

(a) North (N) Shell Sand Silo
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the North (N) Shell Sand Silo shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour (0.4 tons per hour).

(b) South (S) Shell Sand Silo
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the South (S) Shell Sand Silo shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour (0.4 tons per hour).

(c) Shell Core Sand Hopper #1
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Shell Core Sand Hopper #1 shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour (0.4 tons per hour).

(d) Shell Core Sand Hopper #2
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Shell Core Sand Hopper #2 shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour (0.4 tons per hour).

(e) Shell Core Machine #6
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Shell Core Machine #6 shall not exceed 1.4 pounds per hour when operating at a process weight rate of 400 pounds per hour (0.2 tons per hour).

(f) Shell Core Machine #7
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Shell Core Machine #7 shall not exceed 1.8 pounds per hour when operating at a process weight rate of 600 pounds per hour (0.3 tons per hour).

(g) Shell Core Machine #8
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Shell Core Machine #8 shall not exceed 1.8 pounds per hour when operating at a process weight rate of 600 pounds per hour (0.3 tons per hour).

(h) 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.10.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) North (N) Shell Sand Silo,

(b) South (S) Shell Sand Silo,

(c) Shell Core Hoppers #1 and #2,

(d) Shell Core Machine #6,

(e) Shell Core Machine #7, and

(f) Shell Core Machine #8.

SECTION D.11 FACILITY OPERATION CONDITIONS

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

(22) **Air Set Core Making Process**
One (1) Air Set Core Making Process, with a nominal sand throughput of 6.0 tons of sand per hour. The Air Set Core Making Process consists of the following emission units:

(a) One (1) Air Set Core Sand Handling Process, with a nominal sand throughput of 6.0 tons of sand per hour:

(1) One (1) South (S) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(2) One (1) enclosed Pneumatic Sand Transporter #2, constructed in 1996, for transferring sand from the South (S) Sand Silo to the Air Set Core Sand Hopper #3.

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(3) One (1) Phenolic Urethane Core Sand Hopper #3, constructed in 1980:

The Phenolic Urethane Core Sand Hopper #3 is common to:
– Phenolic Urethane Core Making Lines #3 and #5, and
– Air Set Core Making Process.

The particulate emissions from the Phenolic Urethane Core Sand Hopper #3 are captured and controlled by a baghouse, identified as Baghouse U that exhausts through a stack, identified as Stack U.

The Baghouse U is common to:
– Phenolic Urethane Core Sand Hoppers #3 and #4, and
– Phenolic Urethane Sand Heaters #3 and #4.

(b) One (1) Air Set Core Sand Mixer #2, constructed prior to 1977, with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Air Set Core Sand Mixer #2 are uncontrolled.

(c) One (1) Air Set Core Machine #2, constructed prior to 1977, with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Air Set Core Machine #2 are uncontrolled.

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

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

D.11.1 Particulate Emission Limitation [326 IAC 6-3-2]

(a) South (S) Sand Silo (Bin Vent)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the South (S) Sand Silo shall not exceed 41.3 pounds per hour when operating at a process weight rate of 70,000 pounds of sand per hour (35.0 tons per hour).

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(b) Pneumatic Sand Transporter #2
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Pneumatic Sand Transporter #2 shall not exceed 41.3 pounds per hour when operating at a process weight rate of 70,000 pounds of sand per hour (35.0 tons per hour).

The Pneumatic Sand Transporter #2 is common to:
– South (S) Sand Silo,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(c) Phenolic Urethane Core Sand Hopper #3 (Baghouse U, Stack U)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand Hopper #3 shall not exceed 28.4 pounds per hour when operating at a process weight rate of 36,000 pounds per hour (18.0 tons per hour).

The Phenolic Urethane Core Sand Hopper #3 is common to:
– Phenolic Urethane Core Making Lines #3 and #5, and
– Air Set Core Making Process.

(d) Air Set Core Sand Mixer #2
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Air Set Core Mixer shall not exceed 13.6 pounds per hour when operating at a process weight rate of 12,000 pounds per hour (6.0 tons per hour).

(e) The pounds per hour limitation was calculated with the following equations:

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

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

$E = 55\, P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.11.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) South (S) Sand Silo Bin Vent,

(b) Pneumatic Sand Transporter #2,

(c) Phenolic Urethane Core Sand Hopper #3,

(d) Air Set Core Sand Mixer #2,

(e) Air Set Core Machine #2, and

(f) Baghouse U.

Compliance Determination Requirements

D.11.3 Emission Controls Operation

(a) The South (S) Sand Silo's integrated bin vent for particulate emissions control shall be in operation at all times that the South (S) Sand Silo is being loaded.

The South (S) Sand Silo is common to:
– Pneumatic Sand Transporter #2,
– Phenolic Urethane Core Making Lines #1 through #5, and
– Air Set Core Making Process.

(b) The Baghouse U for particulate emissions control shall be in operation at all times that the Phenolic Urethane Core Sand Hopper #3 is in operation.

The Baghouse U is common to:
– Core Sand Hoppers #3 and #4, and
– Phenolic Urethane Sand Heaters #3 and #4,

(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.

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

D.11.4 Visible Emissions Notations

(a) Visible emission notations of the:

(1) South (S) Sand Silo's integrated bin vent stack exhaust, and

(2) Baghouse U exhaust stack (Stack U)

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 in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.11.5 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the Baghouse U, at least once per day, when the Phenolic Urethane Core Sand Hopper #3 is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The Baghouse U is common to:
– Phenolic Urethane Core Sand Hoppers #3 and #4, and
– Phenolic Urethane Sand Heaters #3 and #4.

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

D.11.6 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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 Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.11.7 Record Keeping Requirements

(a) To document compliance with Condition D.11.4 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse U stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.11.5– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse U. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

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

SECTION D.12 FACILITY OPERATION CONDITIONS

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

(23) **Large Core Production Cell**
One (1) Large Core Production Cell (ID LCC), permitted to be constructed in 2006, which will initially be utilized as a phenolic urethane cold box core making operation. The Large Core Production Cell consists of the following emission units:

(a) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(b) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Phenolic Urethane Core Sand Hopper #8.

The Pneumatic Sand Transporter #1 is common to:
– Northeast (NE) Sand Silo,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(c) One (1) Large Core Sand Weigh Hopper, permitted to be constructed in 2006, with a nominal throughput capacity of 15 tons of sand per hour.

The Large Core Sand Weigh Hopper is common to:
– Large Core Production Cell Lines #10 and #11.

The particulate emissions from the Large Core Sand Weigh Hopper are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(d) Large Core Production Cell Line #10, constructed in 2006, consisting of the following emission units:

(1) One (1) Sand / Resin Mixer #10, with a nominal throughput capacity of 15 tons of sand per hour and 34.18 pounds of resin per hour

Emissions from the Sand / Resin Mixer #10 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(2) One (1) Large Core Sand Holding Hopper #10, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Holding Hopper #10 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(3) One (1) electric Large Core Sand Heater #10, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Heater #10 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
- Phenolic Urethane Core Sand Hopper #1,
- Phenolic Urethane Sand Heater #1,
- Large Core Sand Weigh Hopper,
- Large Core Sand Holding Hoppers #10 and #11, and
- Large Core Sand Heaters #10 and #11.

(4) One (1) Cold Box Phenolic Urethane Core Machine #29, with a nominal throughput capacity of 7 tons of cores per hour, using a nominal of 2.75 pounds of catalyst per ton of core sand;

(A) Operating Scenario #1
The current operating scenario, Operating Scenario #1, will use Resin #1 and Catalyst #1. Resin #1 is a phenolic urethane resin. Catalyst #1 is Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the Cold Box Phenolic Urethane Core Machine #30, when using Resin #1 and Catalyst #1, are captured at the core box and controlled by an acid scrubber, identified as Acid Scrubber AF, and exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

(B) Operating Scenario #2
Operating Scenario #2 will use Resin #2 and Catalyst #2. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(C) Operating Scenario #3
Operating Scenario #3 will use Resin #3 and Catalyst #3. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(5) One (1) Core Wash Dip Tank #29, with a nominal capacity of 15 tons of cores per hour and 20.408 pounds of core wash per ton of core sand.

Emissions from the Core Wash Dip Tank #29 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(e) Large Core Production Cell Line #11, permitted to be constructed in 2006, consisting of the following emission units:

(1) One (1) Sand / Resin Mixer #11, with a nominal throughput capacity of 15 tons of sand per hour and 34.18 pounds of resin per hour, with no emission controls;

Emissions from the Sand / Resin Mixer #11 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(2) One (1) Large Core Sand Holding Hopper #11, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Holding Hopper #11 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(3) One (1) electric Large Core Sand Heater #11, with a nominal sand throughput of 15 tons of sand per hour.

The particulate emissions from the Large Core Sand Heater #11 are captured and controlled by a baghouse, identified as Baghouse Q that exhausts through a stack, identified as Stack Q.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(4) One (1) Cold Box Phenolic Urethane Core Machine #30, with a nominal throughput capacity of 7 tons of cores per hour, using a nominal of 2.75 pounds of catalyst per ton of core sand;

(A) Operating Scenario #1
The current operating scenario, Operating Scenario #1, will use Resin #1 and Catalyst #1. Resin #1 is a phenolic urethane resin. Catalyst #1 is

Dimethylisopropylamine (DMIPA) or an equivalent, non-HAP containing catalyst with no more than 100% VOC content.

The VOC emissions from the Cold Box Phenolic Urethane Core Machine #30, when using Resin #1 and Catalyst #1, are captured at the core box and controlled by an acid scrubber, identified as Acid Scrubber AF, and exhaust to a stack, identified as Stack AF.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(B) Operating Scenario #2
Operating Scenario #2 will use Resin #2 and Catalyst #2. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(C) Operating Scenario #3
Operating Scenario #3 will use Resin #3 and Catalyst #3. This system will be tested within 180 days of commencing operations using this resin/catalyst system.

(5) One (1) Core Wash Dip Tank #30, with a nominal capacity of 15 tons of cores per hour and 20.408 pounds of core wash per ton of core sand with no emission controls; and

Emissions from the Core Wash Dip Tank #30 are uncontrolled, and exhaust to a stack, identified as Stack AF.

(f) One (1) natural gas fired Core Oven #29, with a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour.

Emissions from the natural gas fired Core Oven #29 are captured, but uncontrolled, and exhaust to a stack, identified as Stack V-45.

The natural gas fired Core Oven #29 is common to:
– Large Core Production Cell Lines #10 and #11.

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

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

D.12.1 VOC PSD Minor Limits [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to SSM 085-21851-00003, issued on October 6, 2006, and in order to render the requirements of 326 IAC 8-1-6 (New Facilities General Reduction Requirements) and 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(a) The total volatile organic compound (VOC) emissions from the two (2) sand / resin mixers (Sand / Resin Mixers #10 and #11), the two (2) cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30), and the two (2) core wash dip tanks (Core Wash Dip Tanks #29 and #30) shall not exceed the following:

(1) 0.02904 pounds of VOC per pound of resin used;

(2) 1.0 pounds of VOC per pound of catalyst used;

(3) 0.02 pounds of VOC per pound of core wash used;

(4) 0.9 pounds of VOC per pound of release agent used; and

(5) 1.0 pounds of VOC per pound of core box cleaner used.

Where: Resin #1 and Catalyst #1 shall represent the current resin / catalyst system in use. Resin #2 / Catalyst #2 and Resin #3 / Catalyst #3 shall represent the other resin / catalyst systems in the Large Core Production Cell that may be used in the future. The VOC emission rates for the mixture of Resin #2 and Catalyst #2 and Resin #3 and Catalyst #3 shall be determined by VOC stack testing to be conducted within 180 days of commencing operations using either of these resin / catalyst systems.

(b) The amount of resin used in the two (2) sand / resin mixers (Sand / Resin Mixers #10 and #11) and the two (2) cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) combined shall not exceed 299,399.3 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The amount of catalyst used in the two (2) cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) combined shall not exceed 32,934.6 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) The amount of core wash used in the two (2) core wash dip tanks combined shall not exceed 245,504.7 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(e) The amount of release agent used in the two (2) cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) combined shall not exceed 1,397 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(f) The amount of core box cleaner used in the two (2) cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) combined shall not exceed 1,725 pounds per twelve consecutive month period, with compliance determined at the end of each month.

A summary of the above VOC emission limits is included in the following table:

Usage Limit (pounds per year)*	**VOC Content Limit** (lb VOC per lb material)	**VOC Emission Limit** (tons/yr)
299,399.3 (resin)	0.02904	4.35
32,934.6 (catalyst)	1.0	16.47

Usage Limit (pounds per year)*	**VOC Content Limit** (lb VOC per lb material)	**VOC Emission Limit** (tons/yr)
245,504.7 (core wash)	0.02	2.46
1,397 (release agent)	0.9	0.63
1,725 (core box cleaner)	1.0	0.86
Total		**24.77**

Compliance with these limitations shall limit emissions of VOC from the LCC to less than 25 tons per year such that the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply. Compliance with these limitations shall also limit emissions of VOC from the LCC such that the emissions increases from the existing emission units, based on the Actual to Projected Actual test in 326 IAC 2-2-2, plus the limited potential to emit from the LCC will be less than the PSD significant threshold of 40 tons per year. Therefore, the PSD requirements of 326 IAC 2-2-1 will not apply.

D.12.2 PM and PM_{10} PSD Minor Limits [326 IAC 2-2]

The PM and PM_{10} emissions from the Large Core Production Cell (ID LCC) shall be limited as follows:

(a) Total PM emissions from the Large Core Production Cell (ID LCC) shall not exceed 0.33 pounds PM per ton of sand throughput;

(b) Total PM_{10} emissions from the Large Core Production Cell (ID LCC) shall not exceed 0.065 pound PM_{10} per ton of sand throughput;

(c) The amount of throughput of sand to the Large Core Production Cell (ID LCC) shall not exceed 12,005 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limitations shall limit PM and PM_{10} emissions from the Large Core Production Cell (ID LCC) such that the emissions increases from the existing emission units, based on the Actual to Projected Actual test in 326 IAC 2-2-2, plus the limited potential to emit from the LCC will be less than the PSD significant thresholds of 25 and 15 tons per year, respectively. Therefore, the Large Core Production Cell (ID LCC) will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1.

D.12.3 Particulate Emission Limitation [326 IAC 6-3-2]

(a) Northeast (NE) Sand Silo (Bin Vent)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Northeast (NE) Sand Silo shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(b) Pneumatic Sand Transporter #1
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Pneumatic Sand Transporter #1 shall not exceed 42.2 pounds per hour when operating at a process weight rate of 79,400 pounds of sand per hour (38.7 tons per hour).

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(c) Large Core Sand Weigh Hopper (Baghouse Q, Stack Q)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Large Core Sand Weigh Hopper shall not exceed 40.0 pounds per hour when operating at a process weight rate of 60,000 pounds per hour (30.0 tons per hour).

The Large Core Sand Weigh Hopper is common to:
- Large Core Production Cell Lines #10 and #11.

(d) Large Core Sand Holding Hopper #10 (Baghouse Q, Stack Q)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Large Core Sand Holding Hopper #10 shall not exceed 25.2 pounds per hour when operating at a process weight rate of 30,000 pounds per hour (15.0 tons per hour).

(e) Large Core Sand Holding Hopper #11 (Baghouse Q, Stack Q)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Large Core Sand Holding Hopper #11 shall not exceed 25.2 pounds per hour when operating at a process weight rate of 30,000 pounds per hour (15.0 tons per hour).

(f) Sand / Resin Mixer #10
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand / Resin Mixer #10 shall not exceed 25.2 pounds per hour when operating at a process weight rate of 30,000 pounds per hour (15.0 tons per hour).

(g) Sand / Resin Mixer #11
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Sand / Resin Mixer #11 shall not exceed 25.2 pounds per hour when operating at a process weight rate of 30,000 pounds per hour (15.0 tons per hour).

(h) The pounds per hour limitations were calculated with the following equations:

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

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

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.12.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the:

(a) Northeast (NE) Sand Silo Bin Vent,

(b) Pneumatic Sand Transporter #1,

(c) Large Core Sand Weigh Hopper,

(d) Baghouse Q,

(e) Sand / Resin Mixer #10,

(f) Large Core Sand Holding Hopper #10,

(g) Electric Large Core Sand Heater #10,

(h) Cold Box Phenolic Urethane Core Machine #29,

(i) Acid Scrubber AF,

(j) Core Wash Dip Tank #29,

(k) Sand / Resin Mixer #11, and

(l) Large Core Sand Holding Hopper #11,

(m) Electric Large Core Sand Heater #11,

(n) Cold Box Phenolic Urethane Core Machine #30,

(o) Core Wash Dip Tank #30, and

(p) Natural gas fired Core Oven #29.

Compliance Determination Requirements

D.12.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Resin #1 / Catalyst #1 (DMIPA) – Operating Scenario #1
During the period within 60 days of achieving the nominal production rate but no later than 180 days after initial start-up of the sand / resin mixers (Sand / Resin Mixers #10 and #11) and the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30), in order to demonstrate compliance with Condition D.12.1 – VOC PSD Minor Limits, the Permittee shall perform VOC testing of the uncontrolled exhaust for the sand / resin mixers (Sand / Resin Mixers #10 and #11) and of the uncontrolled exhaust for the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) when using the resin identified as Resin #1 and the catalyst identified as Catalyst #1 (DMIPA) 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 Section C – Performance Testing.

(b) Resin #2 / Catalyst #2 – Operating Scenario #2
During the period within 60 days of achieving the nominal production rate but no later than 180 days after start-up of the sand / resin mixers (Sand / Resin Mixers #10 and #11) and the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) using the resin identified as Resin #2 and the catalyst identified as Catalyst #2, in order to demonstrate compliance with Condition D.12.1 – VOC PSD Minor Limits, the Permittee shall perform VOC testing of the uncontrolled exhaust for the sand / resin mixers (Sand / Resin Mixers #10 and #11) and of the uncontrolled exhaust for the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) when using the resin identified as Resin #2 and the catalyst identified as Catalyst #2 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 Section C – Performance Testing.

(c) Resin #3 / Catalyst #3 – Operating Scenario #3
During the period within 60 days of achieving the nominal production rate but no later than 180 days after start-up of the sand / resin mixers (Sand / Resin Mixers #10 and #11) and the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) using the resin identified as Resin #3 and the catalyst identified as Catalyst #3, in order to demonstrate compliance with Condition D.12.1 – VOC PSD Minor Limits, the Permittee shall perform VOC testing of the uncontrolled exhaust for the sand / resin mixers (Sand / Resin Mixers #10 and #11) and of the uncontrolled exhaust for the cold box phenolic urethane core machines (Cold Box Phenolic Urethane Core Machines #29 and #30) when using the resin identified as Resin #3 and the catalyst identified as Catalyst #3 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 Section C – Performance Testing.

D.12.6 VOC Emissions

Compliance with the VOC emission limit in Condition D.12.1 – VOC PSD Minor Limits shall be determined using the following equation:

Total VOC Emissions (lb/month)	=	(lb Resin # 1 used/month) x (0.02904 lb VOC/lb resin used)
	+	(lb Catalyst # 1 used/month) x (1.0 lb VOC/lb of catalyst used)

\+ (lb Resin # 2 used and Pounds Catalyst # 2 used/month[1]) x (VOC emission per unit of use (determined from stack test))

\+ (lb Resin # 3 used and Pounds Catalyst # 3 used/month[1]) x (VOC emission per unit of use (determined from stack test))

\+ (lb Core Wash used/month) x (0.02 lb VOC/lb of core wash used)

\+ (lb Release Agent used) x (0.9 lb VOC/lb of Release Agent used)

\+ (lb core box cleaner) x (1.0 lb VOC/lb of core box cleaner used)

[1] If catalyst used contains a VOC.

D.12.7 Emission Controls Operation

(a) The Northeast (NE) Sand Silo's integrated bin vent for particulate emissions control shall be in operation at all times that the Northeast (NE) Sand Silo is being loaded.

The Northeast (NE) Sand Silo is common to:
– Pneumatic Sand Transporter #1,
– Hot Box Core Making Line #7,
– Core Making Line #9,
– Phenolic Urethane Core Making Line #8, and
– Large Core Production Cell Lines #10 and #11.

(b) Baghouse Q
In order to comply with Condition D.12.2 – PM and PM_{10} PSD Minor Limits and Condition D.12.3 – Particulate Emission Limitation, the Baghouse Q for particulate emissions control shall be in operation at all times that any of the following:

(1) Large Core Sand Weigh Hopper,

(2) Large Core Sand Holding Hoppers #10 and #11, and

(3) Large Core Sand Heaters #10 and #11.

are in operation.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

(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) The Acid Scrubber AF shall be in operation at all times when Cold Box Phenolic Urethane Core Machines #29 and #30 are in operation.

The Acid Scrubber AF is common to:

- Phenolic Urethane Core Machines #1 and #2,
- Phenolic Urethane Core Machines #4 and #5,
- Phenolic Urethane Core Machines #7 through #19,
- Phenolic Urethane Core Machines #21 and #22,
- Phenolic Urethane Core Machine #25,
- Phenolic Urethane Core Machines #27 and #28, and
- Cold Box Phenolic Urethane Core Machines #29 and #30.

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

D.12.8 Visible Emissions Notations

(a) Visible emission notations of the:

(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust,

(2) Baghouse Q exhaust stack (Stack V),

(3) Acid Scrubber AF exhaust stack (Stack AF)

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 in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.12.9 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop, flow rate, and pH of the Acid Scrubber AF, at least once per day when any of the associated core machines is in operation and venting to the atmosphere.

(1) When for any one reading, the pressure drop across Acid Scrubber AF is below a minimum of 34 inches of water or a minimum pressure drop established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(2) When for any one reading, the flow rate across Acid Scrubber AF is below a minimum of 200 gallons per minute or a minimum flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

(3) When for any one reading, the pH across Acid Scrubber AF is below a minimum of 4.5 or a minimum pH established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

A pressure drop, flow rate, or pH reading that is below the above mentioned minimums is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The Acid Scrubber AF is common to:
– Phenolic Urethane Core Machines #1 and #2,
– Phenolic Urethane Core Machines #4 and #5,
– Phenolic Urethane Core Machines #7 through #19,
– Phenolic Urethane Core Machines #21 and #22,
– Phenolic Urethane Core Machine #25,
– Phenolic Urethane Core Machines #27 and #28, and
– Cold Box Phenolic Urethane Core Machines #29 and #30.

(b) The instrument used for determining the pressure and flow rate 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.12.10 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed, the failed scrubber 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).

D.12.11 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Baghouse Q
The Permittee shall record the pressure drop across the Baghouse Q, at least once per day, when the following are in operation:

(1) Large Core Sand Weigh Hopper,

(2) Large Core Sand Holding Hoppers #10 and #11, and

(3) Large Core Sand Heaters #10 and #11.

When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

The Baghouse Q is common to:
– Phenolic Urethane Core Sand Hopper #1,
– Phenolic Urethane Sand Heater #1,
– Large Core Sand Weigh Hopper,
– Large Core Sand Holding Hoppers #10 and #11, and
– Large Core Sand Heaters #10 and #11.

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

D.12.12 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(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 emission unit. 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.12.13 Record Keeping Requirements

(a) To document compliance with Condition D.12.1 – VOC PSD Minor Limits, the Permittee shall maintain records of the VOC content and usage amounts of:

(1) resin,

(2) catalyst,

(3) core wash,

(4) release agent, and

(5) core box cleaner

for the Large Core Production Cell (ID LCC). Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the VOC content of the core wash, release agent, and core box cleaner used.

(b) To document compliance with Condition D.12.2 – PM and PM_{10} PSD Minor Limits, the Permittee shall maintain records of the sand throughput to the Large Core Production Cell (ID LCC).

(c) To document compliance with Condition D.12.8 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse Q and acid scrubber AF stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) To document compliance with Condition D.12.9– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the acid scrubber AF. The Permittee shall include in its daily record when the pH, pressure drop and flow rate reading are not taken and the reason for the lack of pH, pressure drop and flow rate readings, (e.g. the process did not operate that day).

(e) To document compliance with Condition D.12.11– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse Q. 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).

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

D.12.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.12.1 – VOC PSD Minor Limits and Condition D.12.2 – PM and PM_{10} PSD Minor Limits shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.13 FACILITY OPERATION CONDITIONS

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

Insignificant Activities

(1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]

(2) The following equipment related to manufacturing activities no resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(3) Cutting 200,000 linear feet or less than one (1") plate or equivalent. [326 IAC 6-3-2]

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

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

D.13.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2] [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-2 and 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility, construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

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

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

(B) the solvent is agitated; or

(C) the solvent is heated.

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

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

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

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

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

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

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

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility, construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

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

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

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

D.13.2 Particulate Emission Limitation [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 above listed processes shall not exceed the pounds per hour limitations as 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

SECTION E.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

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

(1) **Cupola Melt Furnace**

One (1) Cupola Melt Furnace, constructed prior to 1977, with a nominal capacity of 48.5 tons per hour of metal melted, and a maximum heat input capacity of 69.95 million British thermal units (MMBtu) per hour.

The particulate emissions from the Cupola Melt Furnace are captured and controlled by a wet scrubber, identified as Wet Scrubber A. The carbon monoxide emissions from the Cupola Melt Furnace are captured and controlled by three (3) natural gas fired afterburners, each with a maximum heat input capacity of 2.2 million British thermal units (MMBtu) per hour. Emissions exhaust through a stack, identified as Stack A.

The fugitive particulate emissions from the Cupola Charge Door are captured and controlled by a baghouse, identified as Baghouse #14, and exhaust through a stack, identified as Stack AD.

(2) **Herman 1 Mold Line**

One (1) Herman 1 Pouring Station, constructed prior to 1977, with a nominal throughput of 30 tons of iron per hour, and 155 tons of mold and core sand per hour.

Emissions from the Herman 1 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-3 and V-4.

(3) **Herman 2 Mold Line**

One (1) Herman 2 Pouring Station, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-19.

(4) **Herman 3 Mold Line**

The volatile organic compound (VOC) emissions from the Herman 3 Mold line are reduced by one (1) Sonoperoxone® system (or an equivalent advanced oxidation system), sand system optimization, use of low VOC core resin binder materials, and automatic mold vent-off gas ignition.

The Sonoperoxone® system is common to:
– Herman 3 Pouring Station,
– Herman 3 Castings Cooling,
– Herman 3 Shakeout, and
– Herman 3 Sand Handling.

One (1) Herman 3 Pouring Station, constructed in 1991, with a nominal throughput of 28 tons of iron per hour and 165 tons of mold and core sand per hour.

Emissions from the Herman 3 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-10.

Under the Iron and Steel Foundries NESHAP (40 CFR 63, Subpart EEEEE)), the following affected facilities are considered an existing affected source:

– Cupola Melt Furnace
– Herman 1 Pouring Station
– Herman 2 Pouring Station
– Herman 3 Pouring Station

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

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.7760, 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 facilities as specified in Table 1 of 40 CFR 63, Subpart EEEEE in accordance with schedule in 40 CFR 63 Subpart EEEEE.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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

E.1.2 Applicability of Iron and Steel Foundries NESHAP Requirements [40 CFR Part 63, Subpart EEEEE]

The provisions of 40 CFR Part 63, Subpart EEEEE (National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries) apply to the affected facilities. A copy of this rule is available on the US EPA Air Toxics Website at www.epa.gov/ttn/atw/ifoundry/ifoundrypg.html.

(1) 40 CFR 63.7680
(2) 40 CFR 63.7681
(3) 40 CFR 63.7682
(4) 40 CFR 63.7683
(5) 40 CFR 63.7690
(6) 40 CFR 63.7700
(7) 40 CFR 63.7710
(8) 40 CFR 63.7720
(9) 40 CFR 63.7730
(10) 40 CFR 63.7731
(11) 40 CFR 63.7732
(12) 40 CFR 63.7733
(13) 40 CFR 63.7734

(14) 40 CFR 63.7735
(15) 40 CFR 63.7736
(16) 40 CFR 63.7740
(17) 40 CFR 63.7741
(18) 40 CFR 63.7742
(19) 40 CFR 63.7743
(20) 40 CFR 63.7744
(21) 40 CFR 63.7745
(22) 40 CFR 63.7746
(23) 40 CFR 63.7747
(24) 40 CFR 63.7750
(25) 40 CFR 63.7751
(26) 40 CFR 63.7753
(27) 40 CFR 63.7760
(28) 40 CFR 63.7761
(29) 40 CFR 63.7765
(30) Appendix - Table 1 to Subpart EEEEE of Part 63

E.1.3 Iron and Steel Foundries Requirements [40 CFR Part 63, Subpart EEEEE]

Pursuant to CFR Part 63, Subpart EEEEE, the Permittee shall comply with the provisions of National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries for the affected facilities, as specified as follows on and after April 23, 2007. Pursuant to the compliance extension granted by IDEM on May 11, 2006, in accordance with the provisions in 40 CFR 63.7761, the Permittee shall comply with the:

(a) Notice of Compliance Status,

(b) First Compliance Report,

(c) Notification of Performance Test,

(d) Conducting the Initial Performance Test, and

(e) Submission of the Start-Up, Shutdown and Malfunction Plan

on and after April 23, 2008.

E.1.4 State Only Iron and Steel Foundries NESHAP Requirements [326 IAC 20-92]

Pursuant to 326 IAC 20-92, the Permittee shall comply with the provisions of the April 22, 2004 version of 40 CFR Part 63, Subpart EEEEE, which are incorporated by reference as 326 IAC 20-92, for the affected facilities. The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart EEEEE, as listed in condition D.1.3, except the Permittee shall follow the requirements of the April 22, 2004 version of 40 CFR Part 63, Subpart EEEEE, as incorporated into 326 IAC 20-92, as follows.

The requirements of 326 IAC 20-92 listed in this condition are not federally enforceable.

E.1.5 One-Time Deadlines Relating to Iron and Steel Foundries Notifications [40 CFR Part 63, Subpart EEEEE]

The Permittee shall comply with the following notification requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Initial Notification	40 CFR 63.7750(b) 40 CFR 63.9(b)(2)	affected facilities	August 20, 2004
Initial Compliance Date	40 CFR 63.7683(a) 40 CFR 63.7683(b)	affected facilities	April 23, 2007
Conduct Initial Compliance Demonstration	40 CFR 63.7730(a)	affected facilities	180 days after April 23, 2007
Initial Compliance Date for Work Practice Standards	40 CFR 63.7683(a) 40 CFR 63.7683(b)	affected facilities	April 22, 2005
Conduct Initial Compliance Demonstration for Work Practice Standards	40 CFR 63.7730(a)	affected facilities	180 days after April 22, 2005
Notification of Intent to Conduct a Performance Test	40 CFR 63.7750(d); 40 CFR 63.7(b)(1)	affected facilities	At least 60 days before the scheduled performance test
Notification of Compliance Status	40 CFR 63.7750(e); 40 CFR 63.9(h)(2)(ii)	affected facilities	within 30 days after compliance demonstration
Compliance Report	40 CFR 63.7751(a)	affected facilities	semi-annually
Immediate Startup, Shutdown, and Malfunction Report	40 CFR 63.7751(c); 40 CFR 63.10(d)(5)(ii)	affected facilities	as needed
Part 70 Monitoring Report	40 CFR 63.7751(d)	affected facilities	semi-annually

SECTION F.1 FUGITIVE DUST CONTROL PLAN

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

(1) **Scrap Yard**

(2) **Herman 2 Mold Line**

(a) One (1) Herman 2 Pouring Station, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Pouring Station are captured, but uncontrolled, and exhaust to the atmosphere through a vent, identified as Vent V-19.

(b) One (1) Herman 2 Castings Cooling process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

Emissions from the Herman 2 Castings Cooling process are captured, but uncontrolled, and exhaust to the atmosphere through two (2) vents, identified as Vents V-8 and V-9.

(c) One (1) Herman 2 Shakeout process, constructed prior to 1977, with a nominal throughput of 37 tons of iron per hour and 166 tons of mold and core sand per hour.

The particulate emissions from the Herman 2 Shakeout process are captured and controlled by a wet collector, identified as Wet Collector #3, and exhaust through a stack, identified as Stack B.

Wet Collector #3 is common to:
– Herman 1 Sand Handling, and
– Herman 2 Shakeout.

(d) One (1) Herman 2 Sand Handling process, constructed prior to 1977, with a nominal throughput of 166 tons of mold and core sand per hour.

The Herman 2 Sand Handling process includes sand screening, sand cooling, water addition, sand mulling, and the ancillary equipment associated with each.

The particulate emissions from the Herman 2 Sand Handling process are captured and controlled by two (2) baghouses, identified as Baghouse #1 and Baghouse #13, and exhaust through two (2) stacks, identified as Stack F and Stack Y, respectively.

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

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

F.1.1 Scrap Yard Sweeping and Watering Requirements

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006, the Permittee shall:

(a) Perform sweeping of the scrap yard at least once per shift, whenever truck traffic is present or the cupola is operating; and

(b) Perform watering of the scrap yard at least once per day, whenever truck traffic is present or the cupola is operating, from April through October unless:

(a) There is at least one tenth of an inch (1/10") of rainfall within the past twenty-four (24) hours; or

(b) There is at least one inch (1") of snow on the ground; or

(c) The ambient air temperature is below thirty-two degrees Fahrenheit (32F).

F.1.2 Herman 2 Mold Line Visible Emissions

Pursuant to 326 IAC 6-4, Fugitive Dust Emissions, and Agreed Order 2001-11054-A, issued on May 25, 2006, the Permittee shall eliminate visible emissions from the Herman 2 Sand Handling system, including the mold cooling, pouring, and shakeout operations, lasting sixty (60) or more seconds, traveling beyond the property boundaries at or near ground level.

If such visible emissions occur, the Permittee shall immediately take all necessary corrective actions, including but not limited to, production decrease or cessation of operation of the Herman 2 Mold Line.

F.1.3 Herman 2 Mold Line Blackwater Advanced Oxidation System

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006, the Permittee shall purchase, install, operate, and optimize a blackwater advanced oxidation system (Sonoperoxone® or equivalent system) on the Herman 2 Mold Line according to the timelines set forth in Agreed Order 2001-11054-A.

Compliance Determination Requirements

None

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

F.1.4 Scrap Yard Visual Observations

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006:

(a) The Permittee shall conduct visual observations of the scrap yard at least once per shift every day during daylight hours, whenever truck traffic is present or the cupola is operating. The visual observations shall be made at a time not less than two (2) hours after either sweeping or watering has been performed in accordance with Condition F.1.1 – Sweeping and Watering Requirements.

(b) Should any visible airborne dust be observed within ten (10) feet of the fence line, generated by either wind, vehicular traffic, or any other activities, the Permittee shall perform additional sweeping or watering, in accordance with Condition F.1.1 – Sweeping and Watering Requirements, immediately after the observation.

(c) Compliance with paragraphs (a) and (b) of this condition and Condition F.1.1 – Sweeping and Watering Requirements does not relieve the Permittee from its duty to comply with the fugitive dust requirements in Section C – Fugitive Dust Emissions and 326 IAC 6-4 nor reduce the Permittee's liabilities for any noncompliance with these requirements.

F.1.5 Herman 2 Mold Line Emissions Observations and Monitoring Requirements

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006:

(a) The Permittee shall conduct emissions observations of the Herman 2 cooling stacks at least once per shift during daylight hours in accordance with Condition F.1.2 – Herman 2 Mold Line Visible Emissions.

(b) The Permittee shall monitor the operating parameters of the Sonoperoxone® system at least once per shift, including, but not limited to,

(1) The hydrogen peroxide usage in gallons per hour of muller operation,

(2) The ozone generator plasma voltage, and

(3) The ultrasonic power in watts

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

F.1.6 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006:

(a) To document compliance with Condition F.1.1 – Scrap Yard Sweeping and Watering Requirements and Condition F.1.4 – Scrap Yard Visual Observations, the Permittee shall maintain records of:

(1) The once per shift and daily visual observations;

(2) The results of once per shift and daily visual observations;

(3) The scrap yard sweeping events;

(4) The scrap yard watering events; and

(5) The weather conditions prohibiting sweeping of the paved areas and / or watering of the yard.

The records shall include the date and time of each observation or event.

(b) To document compliance with Condition F.1.2 – Herman 2 Mold Line Visible Emissions and Condition F.1.5 – Herman 2 Mold Line Emissions Observations and Monitoring Requirements, the Permittee shall record the emissions observations and results and the parametric monitoring and any corrective actions taken. These records shall include:

(1) The date and time of each once per shift emissions observation;

(2) The results of once per shift emissions observations; and

(3) Documentation of the parametric monitoring and any corrective actions taken;

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

F.1.7 Notification Requirements

Pursuant to Agreed Order 2001-11054-A, issued on May 25, 2006, the Permittee shall notify the current OAQ Compliance Inspector by telephone and in writing via facsimile of:

(a) Every event of deviation from the requirements specified in conditions F.1.1 – Sweeping and Watering Requirements and F.1.4 – Scrap Yard Visual Observations;

(b) Each observation of visible dust leaving the property at or near ground level; and

(c) Every observation of visible emissions from the Herman 2 Sand Handling system, including the mold cooling, pouring, and shakeout operations, lasting sixty (60) or more seconds, traveling beyond the property boundaries at or near ground level;

within twenty-four (24) hours of the event or observation, or by the next business day.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify): ______________________________

☐ Report (specify): ______________________________

☐ Notification (specify): ______________________________

☐ Affidavit (specify): ______________________________

☐ Other (specify): ______________________________

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003

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

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

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

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

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

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

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Cupola Charge Handling
Parameters: Amount of Metal Charged
Limits: 199,194 tons of metal per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.1)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Cupola Melt Furnace
Parameters: Amount of Metal Melted
Limits: 187,919 tons of metal per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.2)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Herman 1, Herman 2, and Herman 3 Sand Handling
Parameters:	Amount of Core and Mold Sand Handled
Limits:	1,127,516 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Sections D.3 and D.4)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Herman 3 Mold Line
Parameters:	Amount of Metal Throughput
Limits:	90,578 tons of metal per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.4)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____

Title/Position: ____

Signature: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Herman 3 Mold Line
Parameters: Amount of Sand Throughput
Limits: 543,470 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.4)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Waste Sand Handling, Screening and Transport System
Parameters:	Amount of Sand Throughput
Limits:	112,752 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.5)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Shot Blast Machines (SB-1 through SB-9)
Parameters: Amount of Finished Castings
Limits: 112,752 tons of finished castings per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.6)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Hot Box Core Making Line #9 (Sand Mixer #9)
Parameters: Amount of Input Resin
Limits: 72,783.76 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the resin shall not exceed 3.5% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Hot Box Core Making Line #9 (Sand Mixer #9)
Parameters: Amount of Input Catalysts
Limits: 14,716.51 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and the VOC content of the catalyst shall not exceed 7.7% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Hot Box Core Making Line #9
Parameters:	Amount of Release Agent
Limits:	6,828.31 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and the VOC content of the release agent shall not exceed 1.2% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Hot Box Core Making Line #9 (Core Wash Dip Tanks #8, #9, and #10)
Parameters: Amount of Core Input Wash
Limits: 39,207.57 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and the VOC content of the core wash shall not exceed 2.0% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Line #1
Parameters: Amount of Sand Throughput
Limits: 17,922 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Line #2
Parameters: Amount of Sand Throughput
Limits: 4,656 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Phenolic Urethane Core Making Line #3
Parameters:	Amount of Sand Throughput
Limits:	23,200 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Line #4
Parameters: Amount of Sand Throughput
Limits: 12,910 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Line #5
Parameters: Amount of Sand Throughput
Limits: 2,383 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Line #8
Parameters: Amount of Sand Throughput
Limits: 6,350 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Phenolic Urethane Core Making Lines #1 through #5, and #8
Parameters:	Amount of Core Wash Used
Limits:	117,260 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the core wash shall not exceed 0.12 pounds per gallon. Compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Lines #1 through #5, and #8
Parameters: Amount of Core Machines Cleaner Used
Limits: 671 gallons per twelve consecutive month period, rolled on a monthly basis, and VOC content of the core machines cleaner shall not exceed 8.17 pounds per gallon. Compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Phenolic Urethane Core Making Lines #1 through #5, and #8
Parameters: Amount of Core Release Agent Used
Limits: 1150 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the core release agent shall not exceed 6.15 pounds per gallon. Compliance determined at the end of each month. (Section D.9)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O Box 1388 Warsaw, Indiana 46581
Part 70 Permit No.: T085-6708-00003
Facility: Phenolic Urethane Core Making #9
Parameter: PM and PM10
Limit: The throughput of sand to the Phenolic Urethane Core Making #9 shall not exceed 12,000 tons of sand per twelve (12) consecutive month period.

QUARTER : **YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (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: ____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O Box 1388 Warsaw, Indiana 46581
Part 70 Permit No.: T085-6708-00003
Facility: Phenolic Urethane Core Making #9
Parameter: VOC Emissions
Limit: The resin usage for the Phenolic Urethane Core Making #9 shall not exceed 295,000 pounds of resin per twelve (12) consecutive month period.

QUARTER : **YEAR**:

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month (pounds)	Resin Usage Previous 11 Months (pounds)	12 Month Total Resin Usage (pounds)
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: ___________________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O Box 1388 Warsaw, Indiana 46581
Part 70 Permit No.: T085-6708-00003
Facility: Phenolic Urethane Core Making #9
Parameter: VOC Emissions
Limit: Catalyst usage for the Phenolic Urethane Core Making #9 shall not exceed 32,935 pounds of VOC catalyst per twelve (12) consecutive month period.

QUARTER : **YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	Catalyst Usage This Month (pounds)	Catalyst Usage Previous 11 Months (pounds)	12 Month Total Catalyst Usage (pounds)
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: ____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Large Core Production Cell (ID LCC)
Parameters: Amount of Resin Used
Limits: 299,399.3 pounds per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the resin shall not exceed 0.02904 pounds of VOC per pound of resin. Compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Large Core Production Cell (ID LCC)
Parameters: Amount of Catalyst Used
Limits: 32,934.6 pounds per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the catalyst shall not exceed 1.0 pounds of VOC per pound of catalyst. Compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Large Core Production Cell (ID LCC)
Parameters:	Amount of Core Wash Used
Limits:	245,504.7 pounds per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the core wash shall not exceed 0.02 pounds of VOC per pound of core wash. Compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Large Core Production Cell (ID LCC)
Parameters:	Amount of Release Agent Used
Limits:	1,397 pounds per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the release agent shall not exceed 0.9 pounds of VOC per pound of release agent. Compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Address:	1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address:	P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.:	T 085-6708-00003
Facilities:	Large Core Production Cell (ID LCC)
Parameters:	Amount of Core Box Cleaner Used
Limits:	1,725 pounds per twelve consecutive month period, rolled on a monthly basis, and VOC content of the core box cleaner shall not exceed 1.0 pounds of VOC per pound of core box cleaner. Compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Large Core Production Cell (ID LCC)
Parameters: Amount of Sand Throughput
Limits: 12,005 tons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month. (Section D.12)

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003

Months: __________ **to** __________ **Year:** ________

Page 1 of 2

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

Attach a signed certification to complete this report.

Attachment A
to a Part 70 **Significant Permit** Modification

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

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Location:	1900 E. Jefferson Street, Warsaw, IN 46580
County:	Kosciusko
SIC Code:	3321
Significant Permit Modification No.:	085-25675-00003
Permit Reviewer:	Josiah Balogun

Source: 69 FR 21923, Apr. 22, 2004, unless otherwise noted.

What this Subpart Covers

§ 63.7680 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for iron and steel foundries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.

§ 63.7681 Am I subject to this subpart?

You are subject to this subpart if you own or operate an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year as defined in §63.2.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

§ 63.7682 What parts of my foundry does this subpart cover?

(a) The affected source is each new or existing iron and steel foundry.

(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.

(d) An affected source is new if you commenced construction or reconstruction of the affected source on or after December 23, 2002. An affected source is reconstructed if it meets the definition of “reconstruction” in §63.2.

§ 63.7683 When do I have to comply with this subpart?

(a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 23, 2007. Major source status for existing affected sources must be determined no later than April 23, 2007.

(b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.

(c) If you have a new affected source for which the initial startup date is on or before April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 22, 2004.

(d) If you have a new affected source for which the initial startup date is after April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(e) If your iron and steel foundry is an area source that becomes a major source of HAP, you must meet the requirements of §63.6(c)(5).

(f) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.

Emissions Limitations

§ 63.7690 What emissions limitations must I meet?

(a) You must meet the emissions limits or standards in paragraphs (a)(1) through (11) of this section that apply to you. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in paragraph (a)(1)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(1)(ii) of this section:

(i) 0.005 grains of PM per dry standard cubic foot (gr/dscf), or

(ii) 0.0004 gr/dscf of total metal HAP.

(2) For each cupola metal melting furnace at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(2)(i) or (ii) of this section or, alternatively the limit for total metal HAP in paragraph (a)(2)(iii) or (iv) of this section:

(i) 0.006 gr/dscf of PM; or

(ii) 0.10 pound of PM per ton (lb/ton) of metal charged, or

(iii) 0.0005 gr/dscf of total metal HAP; or

(iv) 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(3)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(3)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(4)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(4)(ii) of this section:

(i) 0.001 gr/dscf of PM, or

(ii) 0.00008 gr/dscf of total metal HAP.

(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:

(i) 0.010 gr/dscf of PM, or

(ii) 0.0008 gr/dscf of total metal HAP.

(6) For each pouring area or pouring station at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(6)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(6)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere 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 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, you must not discharge emissions of volatile organic hazardous air pollutants (VOHAP) through a conveyance to the atmosphere that exceed 20 parts per million by volume (ppmv) corrected to 10 percent oxygen.

(9) As an alternative to the work practice standard in §63.7700(e) for a scrap preheater at an existing iron and steel foundry or in §63.7700(f) for a scrap preheater at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed a flow-weighted average of 20 ppmv.

(11) For each triethylamine (TEA) cold box mold or core making line at a new or existing iron and steel foundry, you must meet either the emissions limit in paragraph (a)(11)(i) of this section or, alternatively the emissions standard in paragraph (a)(11)(ii) of this section:

(i) You must not discharge emissions of TEA through a conveyance to the atmosphere that exceed 1 ppmv, as determined according to theperformance test procedures in § 63.7732(g); or

(ii) You must reduce emissions of TEA from each TEA cold box mold or core making line by at least 99 percent, as determined according to the performance test procedures in § 63.7732(g).

(b) You must meet each operating limit in paragraphs (b)(1) through (5) of this section that applies to you.

(1) You must install, operate, and maintain a capture and collection system for all emissions sources subject to an emissions limit for VOHAP or TEA in paragraphs (a)(8) through (11) of this section.

(i) Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(ii) You must operate each capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan.

(2) You must operate each wet scrubber applied to emissions from a metal melting furnace, scrap preheater, pouring area, or pouring station subject to an emissions limit for PM or total metal HAP in paragraphs (a)(1) through (6) of this section such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test.

(3) You must operate each combustion device applied to emissions from a cupola metal melting furnace subject to the emissions limit for VOHAP in paragraph (a)(8) of this section, such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average.

(4) You must operate each combustion device applied to emissions from a scrap preheater subject to the emissions limit for VOHAP in paragraph (a)(9) of this section or from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section, such that the 3-hour average combustion zone temperature does not fall below the minimum level established during the initial or subsequent performance test.

(5) You must operate each wet acid scrubber applied to emissions from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section such that:

(i) The 3-hour average scrubbing liquid flow rate does not fall below the minimum level established during the initial or subsequent performance test; and

(ii) The 3-hour average pH of the scrubber blowdown, as measured by a continuous parameter monitoring system (CPMS), does not exceed 4.5 or the pH of the scrubber blowdown, as measured once every 8 hours during process operations, does not exceed 4.5.

(c) If you use a control device other than a baghouse, wet scrubber, wet acid scrubber, or combustion device, you must prepare and submit a monitoring plan containing the information listed in paragraphs (c)(1) through (5) of this section. The monitoring plan is subject to approval by the Administrator.

(1) A description of the device;

(2) Test results collected in accordance with §63.7732 verifying the performance of the device for reducing emissions of PM, total metal HAP, VOHAP, or TEA to the levels required by this subpart;

(3) A copy of the operation and maintenance plan required by §63.7710(b);

(4) A list of appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limitation(s); and

(5) Operating parameter limits based on monitoring data collected during the performance test.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

Work Practice Standards

§ 63.7700 What work practice standards must I meet?

(a) For each segregated scrap storage area, bin or pile, you must either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section. You may have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.

(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses 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, mercury switches, plastics, or free organic liquids. For the purpose of this paragraph (b), “free organic liquids” is defined as material that fails the paint filter test by EPA Method 9095A, “Paint Filter Liquids Test” (Revision 1, December 1996), as published in EPA Publication SW–846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (incorporated by reference—see §63.14). Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification.

(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.

(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or

(ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastic, and a program to ensure the scrap materials are drained of free liquids.

(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must either obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable, or document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.

(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.

(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.

(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.

(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.

(iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.

(d) For each furan warm box mold or core making line in a new or existing iron and steel foundry, you must use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet. This requirement does not apply to the resin portion of the binder system.

(e) For each scrap preheater at an existing iron and steel foundry, you must meet either the requirement in paragraph (e)(1) or (2) of this section. As an alternative to the requirement in paragraph (e)(1) or (2) of this section, you must meet the VOHAP emissions limit in §63.7690(a)(9).

(1) You must operate and maintain a gas-fired preheater where the flame directly contacts the scrap charged; or

(2) You must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section.

(f) For each scrap preheater at a new iron and steel foundry, you must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section. As an alternative to this requirement, you must meet the VOHAP emissions limit in §63.7690(a)(9).

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7218, February 7, 2008]

Operation and Maintenance Requirements

§ 63.7710 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to a PM, metal HAP, TEA, or VOHAP emissions limit in §63.7690(a). Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.

(1) 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). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.

(2) Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11). You must establish the operating according to the requirements in paragraphs (b)(2)(i) through (iii) of this section.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting.

(ii) For each operating limit parameter selected in paragraph (b)(2)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (i.e., the operating limits with one furnace melting, two melting, as applicable to your plant).

(iii) Include documentation in your plan to support your selection of the operating limits established for your capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations.

(3) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(4) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) 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) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

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

(5) Corrective action plan for each baghouse. The plan must include the requirement that, in the event 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 the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:

(i) Inspecting the baghouse 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 compartment.

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

(vi) Making process changes.

(vii) Shutting down the process producing the PM emissions.

(6) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and

(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

General Compliance Requirements

§ 63.7720 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, or malfunction.

(b) During the period between the compliance date specified for your iron and steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

Initial Compliance Requirements

§ 63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after the compliance date that is specified in §63.7683 for your iron and steel foundry to demonstrate initial compliance with each emissions limitation in §63.7690 that applies to you.

(b) For each work practice standard in §63.7700 and each operation and maintenance requirement in §63.7710 that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than 30 calendar days after the compliance date that is specified for your iron and steel foundry in §63.7683.

(c) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, you must demonstrate initial compliance with either the proposed emissions limit or the promulgated emissions limit no later than October 19, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, and you chose to comply with the proposed emissions limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emissions limit by October 19, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

§ 63.7731 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emissions limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years and each time you elect to change an operating limit or to comply with a different alternative emissions limit, if applicable. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.

(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?

(a) You must conduct each performance test that applies to your iron and steel foundry based on your selected compliance alternative, if applicable, according to the requirements in §63.7(e)(1) and the conditions specified in paragraphs (b) through (i) of this section.

(b) To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. 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.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater. For a cupola metal melting furnace at an existing iron and steel foundry that is subject to the PM emissions limit in §63.7690(a)(ii), calculate the PM emissions rate in pounds of PM per ton (lb/ton) of metal charged using Equation 1 of this section:

$$EF_{PM} = C_{PM} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7{,}000} \right) \qquad \text{(Eq. 1)}$$

Where:

EF_{PM} = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged;

C_{PM} = Concentration of PM measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm);

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and
7,000 = Unit conversion factor, grains per pound (gr/lb).

(c) To determine compliance with the applicable emissions limit for total metal HAP in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (6) of this section.

(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. 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.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 29 to determine the total metal HAP concentration.

(2) A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater during each performance test run and calculate the total metal HAP emissions rate (pounds of total metal HAP per ton (lb/ton) of metal charged) using Equation 2 of this section:

$$EF_{TMHAP} = C_{TMHAP} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7{,}000} \right) \qquad \text{(Eq. 2)}$$

Where:

EF_{TMHAP} = Emissions rate of total metal HAP, pounds of total metal HAP per ton (lb/ton) of metal charged;

C_{TMHAP} = Concentration of total metal HAP measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dscfm;

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, gr/lb.

(d) To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and §63.6(h)(5). 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.

(2) During testing intervals when PM performance tests, if applicable, are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests.

(e) To determine compliance with the applicable VOHAP emissions limit in §63.7690(a)(8) for a cupola metal melting furnace or in §63.7690(a)(9) for a scrap preheater, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.

(1) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. 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.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO) or Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas.

(2) Determine the average VOHAP, TGNMO, or TOC concentration using a minimum of three valid test runs. Each test run must include a minimum of 60 continuous operating minutes.

(3) For a cupola metal melting furnace, correct the measured concentration of VOHAP, TGNMO, or TOC for oxygen content in the gas stream using Equation 3 of this section:

$$C_{VOHAP,10\%O_2} = C_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 3)}$$

Where:

C_{VOHAP} = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A; and

$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis).

(4) For a cupola metal melting furnace, measure the combustion zone temperature of the combustion device with the CPMS required in §63.7740(d) during each sampling run in 15-minute intervals. Determine and record the 15-minute average of the three runs.

(f) Follow the applicable procedures in paragraphs (f)(1) through (3) of this section to determine compliance with the VOHAP emissions limit in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines.

(1) Follow these procedures to demonstrate compliance by direct measurement of total hydrocarbons (a surrogate for VOHAP) using a volatile organic compound (VOC) CEMS.

(i) Using the VOC CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) for 180 continuous operating minutes. You must measure emissions 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.

(ii) Reduce the monitoring data to hourly averages as specified in §63.8(g)(2).

(iii) Compute and record the 3-hour average of the monitoring data.

(2) As an alternative to the procedures in paragraph (f)(1) of this section, you may demonstrate compliance with the VOHAP emissions limit in §63.7690(a)(10) by establishing a site-specific TOC emissions limit that is correlated to the VOHAP emissions limit according to the procedures in paragraph (f)(2)(i) through (ix) of this section.

(i) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraph (f)(2)(ii) through (vi) of this section.

(ii) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. 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.

(iii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iv) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(v) Method 4 to determine the moisture content of the stack gas.

(vi) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of TGNMO using hexane as the calibration gas.

(vii) Using the CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) during each of the Method 18 (or Method 25) sampling runs. You must measure emissions 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.

(viii) Calculate the average VOHAP (or TGNMO) concentration for the source test as the arithmetic average of the concentrations measured for the individual test runs, and determine the average concentration of total hydrocarbon (as hexane) as measured by the CEMS during all test runs.

(ix) Calculate the site-specific VOC emissions limit using Equation 4 of this section:

$$VOC_{limit} = 20x\frac{C_{VOHAP,avg}}{C_{CEM}} \qquad \text{(Eq. 4)}$$

Where:

$C_{VOHAP,avg}$ = Average concentration of VOHAP for the source test in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the average concentration of TGNMO for the source test in ppmv as hexane as measured by Method 25 in 40 CFR part 60, appendix A; and

C_{CEM} = Average concentration of total hydrocarbons in ppmv as hexane as measured using the CEMS during the source test.

(3) For two or more exhaust streams from one or more automated conveyor and pallet cooling lines or automated shakeout lines, compute the flow-weighted average concentration of VOHAP emissions for each combination of exhaust streams using Equation 5 of this section:

$$C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 5)}$$

Where:

C_W = Flow-weighted concentration of VOHAP or VOC, ppmv (as hexane);

C_i = Concentration of VOHAP or VOC from exhaust stream ‘‘i’’, ppmv (as hexane);

n = Number of exhaust streams sampled; and

Q_i = Volumetric flow rate of effluent gas from exhaust stream ‘‘i,’’, dscfm.

(g) To determine compliance with the emissions limit or standard in §63.7690(a)(11) for a TEA cold box mold or core making line, follow the test methods in 40 CFR part 60, appendix A, specified in paragraphs (g)(1) through (4) of this section.

(1) Determine the TEA concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (g)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. If you elect to meet the 99 percent reduction standard, sampling sites must be located both at the inlet to the control device and at the outlet of the control device prior to any releases to the atmosphere. If you elect to meet the concentration limit, the sampling site 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.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the TEA concentration. Alternatively, you may use NIOSH Method 2010 (incorporated by reference—see §63.14) to determine the TEA concentration provided the performance requirements outlined in section 13.1 of EPA Method 18 are satisfied. The sampling option and time must be sufficiently long such that either the TEA concentration in the field sample is at least 5 times the limit of detection for the analytical method or the test results calculated using the laboratory's reported analytical detection limit for the specific field samples are less than 1⁄5 of the applicable emissions limit. When using Method 18, the adsorbent tube approach, as described in section 8.2.4 of Method 18, may be required to achieve the necessary analytical detection limits. The sampling time must be at least 1 hour in all cases.

(2) If you use a wet acid scrubber, conduct the test as soon as practicable after adding fresh acid solution and the system has reached normal operating conditions.

(3) If you use a wet acid scrubber that is subject to the operating limit in §63.7690(b)(5)(ii) for pH level, determine the pH of the scrubber blowdown using the procedures in paragraph (g)(3)(i) or (ii) of this section.

(i) Measure the pH of the scrubber blowdown with the CPMS required in §63.7740(f)(2) during each TEA sampling run in intervals of no more than 15 minutes. Determine and record the 3-hour average; or

(ii) Measure and record the pH level using the probe and meter required in §63.7740(f)(2) once each sampling run. Determine and record the average pH level for the three runs.

(4) If you are subject to the 99 percent reduction standard, calculate the mass emissions reduction using Equation 6 of this section:

$$\%\text{reduction} = \frac{E_i - E_o}{E_i} x100\% \qquad \text{(Eq. 6)}$$

Where:

E_i = Mass emissions rate of TEA at control device inlet, kilograms per hour (kg/hr); and

E_o = Mass emissions rate of TEA at control device outlet, kg/hr.

(h) To determine compliance with the PM or total metal HAP emissions limits in §63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.

(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(2) Use the procedures in paragraphs (h)(2)(i) through (iii) of this section.

(i) Determine the volumetric flow rate of the individual regulated streams for which emissions limits apply.

(ii) Calculate the flow-weighted average emissions limit, considering only the regulated streams, using Equation 5 of this section, except C_w is the flow-weighted average emissions limit for PM or total metal HAP in the exhaust stream, gr/dscf; and C_i is the concentration of PM or total metal HAP in exhaust stream ‘‘i’’, gr/dscf.

(iii) Meet the calculated flow-weighted average emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(3) Use the procedures in paragraphs (h)(3)(i) through (iii) of this section.

(i) Determine the PM or total metal HAP concentration of each of the regulated streams prior to the combination with other exhaust streams or control device.

(ii) 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 6 of this section, except E_i is the mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr and E_o is the mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(iii) Meet the applicable emissions limit based on the calculated PM or total metal HAP concentration for the regulated emissions sources using Equation 7 of this section:

$$C_{released} = C_i x\left(1 - \frac{\%reduction}{100}\right) \qquad \text{(Eq. 7)}$$

Where:

$C_{released}$= Calculated concentration of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, gr/dscf; and

C_i= Concentration of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, gr/dscf.

(i) 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 (b) through (h) of this section, a site-specific test plan should be submitted to the Administrator for approval according to the requirements in § 63.7(c)(2) and (3).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7733 What procedures must I use to establish operating limits?

(a) For each capture system subject to operating limits in §63.7690(b)(1)(ii), you must establish site-specific operating limits in your operation and maintenance plan according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).

(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.

(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.

(b) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run.

(2) Compute and record the average pressure drop and average scrubber water flow rate for each valid sampling run in which the applicable emissions limit is met.

(c) For each combustion device applied to emissions from a scrap preheater or TEA cold box mold or core making line subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you must establish a site-specific operating limit according to the procedures specified in paragraphs (c)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(e), measure and record the combustion zone temperature during each sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average combustion zone temperature for each valid sampling run in which the applicable emissions limit is met.

(d) For each acid wet scrubber subject to the operating limit in §63.7690(b)(5), you must establish a site-specific operating limit for scrubbing liquid flow rate according to the procedures specified in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(f), measure and record the scrubbing liquid flow rate during each TEA sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average scrubbing liquid flow rate for each valid sampling run in which the applicable emissions limit is met.

(e) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in paragraphs (e)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request 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 §63.7690.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (d) of this section.

(f) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of this subpart.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?

(a) You have demonstrated initial compliance with the emissions limits in §63.7690(a) by meeting the applicable conditions in paragraphs (a)(1) through (11) of this section. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.005 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.006 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0005 gr/dscf; or

(iii) The average PM mass emissions rate, determined according to the performance test procedures in §63.7732(b), did not exceed 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) The average total metal HAP mass emissions rate, determined according to the performance test procedures in §63.7732(c), did not exceed 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.001 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.010 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, the opacity of fugitive emissions from foundry operations discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not exceed 20 percent (6-minute average), except for one 6-minute average per hour that did not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, the average VOHAP concentration, determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing iron and steel foundry that does not meet the work practice standards in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not meet the work practice standard in §63.7700(f), the average VOHAP concentration determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new foundry,

(i) You have reduced the data from the CEMS to 3-hour averages according to the performance test procedures in §63.7732(f)(1) or (2); and

(ii) The 3-hour flow-weighted average VOHAP concentration, measured according to the performance test procedures in §63.7332(f)(1) or (2), did not exceed 20 ppmv.

(11) For each TEA cold box mold or core making line in a new or existing iron and steel foundry, the average TEA concentration, determined according to the performance test procedures in §63.7732(g), did not exceed 1 ppmv or was reduced by 99 percent.

(b) You have demonstrated initial compliance with the operating limits in §63.7690(b) if:

(1) For each capture system subject to the operating limit in §63.7690(b)(1)(ii),

(i) You have established appropriate site-specific operating limits in your operation and maintenance plan according to the requirements in §63.7710(b); and

(ii) You have a record of the operating parameter data measured during the performance test in accordance with §63.7733(a); and

(2) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b).

(3) For each combustion device subject to the operating limit in §63.7690(b)(3) for combustion zone temperature, you have a record of the combustion zone temperature measured during the performance test in accordance with §63.7732(e)(4).

(4) For each combustion device subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you have established appropriate site-specific operating limits and have a record of the combustion zone temperature measured during the performance test in accordance with §63.7733(c).

(5) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5) for scrubbing liquid flow rate and scrubber blowdown pH,

(i) You have established appropriate site-specific operating limits for the scrubbing liquid flow rate and have a record of the scrubbing liquid flow rate measured during the performance test in accordance with §63.7733(d); and

(ii) You have a record of the pH of the scrubbing liquid blowdown measured during the performance test in accordance with §63.7732(g)(3).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?

(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that: “At all times, your foundry will purchase and use 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, mercury switches, plastics, or free organic liquids.”

(b) For each iron and steel foundry subject to the requirements in §63.7700(c) for a scrap inspection and selection plan, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted a written plan to the Administrator for approval according to the requirements in §63.7700(c); and

(2) You will operate at all times according to the plan requirements.

(c) For each furan warm box mold or core making line in a new or existing foundry subject to the work practice standard in §63.7700(d), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You will meet the no methanol requirement for the catalyst portion of each binder chemical formulation; and

(2) You have records documenting your certification of compliance, such as a material safety data sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet, onsite and available for inspection.

(d) For each scrap preheater at an existing iron and steel foundry subject to the work practice standard in §63.7700(e)(1) or (2), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have installed a gas-fired preheater where the flame directly contacts the scrap charged, you will operate and maintain each gas-fired scrap preheater such that the flame directly contacts the scrap charged, and you have records documenting your certification of compliance that are onsite and available for inspection; or

(2) You will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

(e) For each scrap preheater at a new iron and steel foundry subject to the work practice standard in §63.7700(f), you have demonstrated initial compliance if you have certified in your notification of compliance status that you will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005]

§ 63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in paragraphs (a)(1) and (2) of this section.

(1) You have certified in your notification of compliance status that:

(i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan.

(2) You have certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan.

(b) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(2) You will inspect, operate, and maintain each control device according to the procedures in the plan.

(c) For each bag leak detection system, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the bag leak detection system monitoring information to the Administrator within the written O&M plan for approval according to the requirements of §63.7710(b);

(2) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and

(3) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan.

(d) For each pouring area and pouring station in a new or existing foundry, you have demonstrated initial compliance if you have certified in your notification of compliance status report that:

(1) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and

(2) You will follow the procedures for igniting mold vent gases according to the requirements in the plan.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

Continuous Compliance Requirements

§ 63.7740 What are my monitoring requirements?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) and the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you use a flow measurement device to monitor the operating limit parameter, you must at all times monitor the hourly average rate (e.g., the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device).

(2) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in § 63.7741(b).

(c) For each baghouse, regardless of type, that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must conduct inspections at their specified frequencies according to the requirements specified in paragraphs (c)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply for pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(d) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c).

(e) For each combustion device subject to the operating limit in §63.7690(b)(3), you must at all times monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).

(f) For each combustion device subject to the operating limit in §63.7690(b)(4), you must at all times monitor the 3-hour average combustion zone temperature using CPMS according to the requirements in §63.7741(d).

(g) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5),

(1) You must at all times monitor the 3-hour average scrubbing liquid flow rate using CPMS according to the requirements of §63.7741(e)(1); and

(2) You must at all times monitor the 3-hour average pH of the scrubber blowdown using CPMS according to the requirements in §63.7741(e)(2) or measure and record the pH of the scrubber blowdown once per production cycle using a pH probe and meter according to the requirements in §63.7741(e)(3).

(h) For one or more automated conveyor and pallet cooling lines and automated shakeout lines at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must at all times monitor the 3-hour average VOHAP concentration using a CEMS according to the requirements of §63.7741(g).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7741 What are the installation, operation, and maintenance requirements for my monitors?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) through (3) of this section.

(1) If you use a flow measurement device to monitor an operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(1)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) If you use a pressure measurement device to monitor the operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close as possible to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly.

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) Record the results of each inspection, calibration, and validation check.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.

(1) 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 (0.0044 grains per actual cubic foot) or less.

(2) 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 electronic or other means (e.g., using a strip chart recorder or a data logger).

(3) 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.

(4) 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 and the alarm delay time (if applicable).

(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. 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 operation and maintenance plan required by §63.7710(b).

(6) For negative pressure, 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.

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

(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in paragraphs (c)(1) and (2) of this section.

(1) For each CPMS for pressure drop you must:

(i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) For each CPMS for scrubber liquid flow rate, you must:

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(d) For each combustion device subject to the operating limit in §63.7690(b)(3) or (4), you must install and maintain a CPMS to measure and record the combustion zone temperature according to the requirements in paragraphs (d)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If you use a chart recorder, it must have a sensitivity in the minor division of at least 20 °F.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor.

(8) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(e) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5), you must:

(1) Install and maintain CPMS to measure and record the scrubbing liquid flow rate according to the requirements in paragraph (c)(2) of this section; and

(2) Install and maintain CPMS to measure and record the pH of the scrubber blowdown according to the requirements in paragraph (e)(2)(i) through (iv) of this section.

(i) Locate the pH sensor in a position that provides a representative measurement of the pH and that minimizes or eliminates internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.1 pH or a transducer with a minimum measurement sensitivity of 5 percent of the pH range.

(iii) Check gauge calibration quarterly and transducer calibration monthly using a manual pH gauge.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) As an alternative to the CPMS required in paragraph (e)(2) of this section, you may use a pH probe to extract a sample for analysis by a pH meter that meets the requirements in paragraphs (e)(3)(i) through (iii) of this section.

(i) The pH meter must have a range of at least 1 to 5 or more;

(ii) The pH meter must have an accuracy of ±0.1; and

(iii) The pH meter must have a resolution of at least 0.1 pH.

(f) You must operate each CPMS used to meet the requirements of this subpart according to the requirements specified in paragraphs (f)(1) through (3) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data.

(2) Each CPMS must have valid hourly data for 100 percent of every averaging period.

(3) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.

(g) For each automated conveyor and pallet cooling line and automated shakeout line at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must install, operate, and maintain a CEMS to measure and record the concentration of VOHAP emissions according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) You must install, operate, and maintain each CEMS according to Performance Specification 8 in 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each CEMS according to the requirements of §63.8 and Performance Specification 8 in 40 CFR part 60, appendix B.

(3) You must operate each CEMS according to the requirements specified in paragraph (g)(3)(i) through (iv) of this section.

(i) 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.

(ii) You must reduce CEMS data as specified in §63.8(g)(2).

(iii) Each CEMS must determine and record the 3-hour average emissions using all the hourly averages collected for periods during which the CEMS is not out-of-control.

(iv) Record the results of each inspection, calibration, and validation check.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7742 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.

(b) 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 emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?

(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section. When alternative emissions limitations are provided for a given emissions source, you must comply with the alternative emissions limitation most recently selected as your compliance alternative.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.006 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0005 gr/dscf; or

(iii) Maintaining the average PM mass emissions rate at or below 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) Maintaining the average total metal HAP mass emissions rate at or below 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at new iron and steel foundry, (i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.001 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions from foundry operations discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing new iron and steel foundry that does not comply with the work practice standard in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not comply with the work practice standard in §63.7700(f), maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines or automated shakeout lines that use a sand mold system at a new iron and steel foundry,

(i) Maintaining the 3-hour flow-weighted average VOHAP concentration in the exhaust stream at or below 20 ppmv;

(ii) Inspecting and maintaining each CEMS according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements; and

(iii) Collecting and reducing monitoring data for according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements.

(11) For each TEA cold box mold or core making line at a new or existing iron and steel foundry, maintaining a 99 percent reduction in the VOHAP concentration in the exhaust stream or maintaining the average VOHAP concentration in the exhaust stream at or below 1 ppmv.

(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in §63.7690(a) and subsequent

performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7).

(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7690(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.

(1) Operating the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and

(2) Monitoring the capture system according to the requirements in §63.7740(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements in this subpart.

(c) For each baghouse,

(1) Inspecting and maintaining each baghouse according to the requirements of §63.7740(c)(1) through (8) and recording all information needed to document conformance with these requirements; and

(2) If the baghouse is equipped with a bag leak detection system, maintaining records of the times the bag leak detection system sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) For each wet scrubber that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(e) For each combustion device that is subject to the operating limit in §63.7690(b)(3), you must demonstrate continuous compliance by:

(1) Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300 °F;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(f) For each combustion device that is subject to the operating limit in §63.7690(b)(4), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average combustion zone temperature at a level no lower that established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(g) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average scrubbing liquid flow rate at a level no lower than the level established during the initial or subsequent performance test;

(2) Maintaining the 3-hour average pH of the scrubber blowdown at a level no higher than 4.5 (if measured by a CPMS) or maintaining the pH level of the scrubber blowdown during each production shift no higher than 4.5;

(3) Inspecting and maintaining each CPMS according to the requirements of §63.7741(e) and recording all information needed to document conformance with these requirements; and

(4) Collecting and reducing monitoring data for scrubbing liquid flow rate and scrubber blowdown pH according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. If the pH level of the scrubber blowdown is measured by a probe and meter, you must demonstrate continuous compliance by maintaining records that document the date, time, and results of each sample taken for each production shift.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d).

(c) For a scrap preheater at an existing iron and steel foundry, you must operate and maintain each gas-fired preheater such that the flame directly contacts the scrap charged to demonstrate continuous compliance with the requirement §63.7700(e)(1). If you choose to meet the work practice standard in §63.7700(e)(2), you must keep records to document that the scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b).

(d) For a scrap preheater at a new iron and steel foundry, you must keep records to document that each scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) to demonstrate continuous compliance with the requirement in §63.7700(f).

§ 63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by:

(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements;

(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;

(4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and

(5) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)

(b) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.

§ 63.7746 What other requirements must I meet to demonstrate continuous compliance?

(a) Deviations. You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies to you. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of §63.7751.

(b) Startups, shutdowns, and malfunctions. (1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

§ 63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?

(a) You may request an alternative monitoring method to demonstrate compliance with the VOHAP emissions limits in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines at a new iron and steel foundry according to the procedures in this section.

(b) You can request approval to use an alternative monitoring method in the notification of construction or reconstruction for new sources, or at any time.

(c) You must submit a monitoring plan that includes a description of the control technique or pollution prevention technique, a description of the continuous monitoring system or method including appropriate operating parameters that will be monitored, test results demonstrating compliance with the emissions limit, operating limit(s) (if applicable) determined according to the test results, and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the monitors.

(d) The monitoring plan is subject to approval by the Administrator. Use of the alternative monitoring method must not begin until approval is granted by the Administrator.

Notifications, Reports, and Records

§ 63.7750 What notifications must I submit and when?

(a) You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you start up your iron and steel foundry before April 22, 2004, you must submit your initial notification no later than August 20, 2004.

(c) If you start up your new iron and steel foundry on or after April 22, 2004, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii). For opacity performance tests, the notification of compliance status may be submitted with the semiannual compliance report in §63.7751(a) and (b) or the semiannual part 70 monitoring report in § 63.7551(d).

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in §63.10(d)(2).

§ 63.7751 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by §63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) 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) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 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 the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

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

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

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance

report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each emissions source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan and the source exceeds any applicable emissions limitation in § 63.7690, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you 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 you submit a compliance report for an iron and steel foundry 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 the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7752 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) 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 requirements of §63.10(b)(2)(xiv).

(2) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation).

(b) You must keep the following records for each CEMS.

(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) Request for alternatives to relative accuracy tests for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7753 In what form and for how long must I keep my records?

(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §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 onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite.

Other Requirements and Information

§ 63.7760 What parts of the General Provisions apply to me?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7761 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (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, in addition to 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 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 Administrator of the U.S. EPA 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 (4) of this section.

(1) Approval of alternatives to non-opacity emissions limitations in §63.7690 and work practice standards in §63.7700 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.

Definitions

§ 63.7765 What definitions apply to this subpart?

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

Automated conveyor and pallet cooling line means any dedicated conveyor line or area used for cooling molds received from pouring stations.

Automated shakeout line means any mechanical process unit designed for and dedicated to separating a casting from a mold. These mechanical processes include, but are not limited to, shaker decks, rotary separators, and high-frequency vibration units. Automated shakeout lines do not include manual processes for separating a casting from a mold, such as personnel using a hammer, chisel, pick ax, sledge hammer, or jackhammer.

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.

Cold box mold or core making line means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas.

Combustion device means an afterburner, thermal incinerator, or scrap preheater.

Conveyance means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance.

Cooling means the process of molten metal solidification within the mold and subsequent temperature reduction prior to shakeout.

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), work practice standard, 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 work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

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.

Emissions limitation means any emissions limit or operating limit.

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

Free organic liquids means material that fails the paint filter test by EPA Method 9095A (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.

Fresh acid solution means a sulfuric acid solution used for the control of triethylamine emissions that has a pH of 2.0 or less.

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart.

Furan 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 furan warm box system by the foundry industry.

Hazardous air pollutant means any substance on the list originally established in 112(b)(1) of the CAA and subsequently amended as published in the Code of Federal Regulations.

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 and operations that only produce non-commercial castings are not included in this definition.

Metal melting furnace means a cupola, electric arc furnace, or electric induction furnace 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 green sand molds or cores.

Mold vent means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring.

Off blast means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off blast conditions include cupola startup when air is introduced to the cupola to preheat the sand bed and other cupola startup procedures as defined in the startup, shutdown, and malfunction plan. Off blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.

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.

Pouring area means an area, generally associated with floor and pit molding operations, in which molten metal is brought to each individual mold. Pouring areas include all pouring operations that do not meet the definition of a pouring station.

Pouring station means the fixed location to which molds are brought in a continuous or semicontinuous manner to receive molten metal, after which the molds are moved to a cooling area.

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.

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 before being returned to the scrubber.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations 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). 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.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7222, February 7, 2008]

Table 1 to Subpart EEEEE of Part 63—Applicability of General Provisions to Subpart EEEEE

[As stated in §63.7760, you must meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to Subpart EEEEE?	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)–(j)	Compliance extension and Presidential compliance exemption	Yes	
63.7(a)(1)–(a)(2)	Applicability and performance test dates	No	Subpart EEEEE specifies applicability and performance test dates.
63.7(a)(3), (b)–(h)	Performance testing requirements	Yes	
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	Subpart EEEEE specifies requirements for alternative monitoring systems.
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No	Subpart EEEEE does not require flares.
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No	Subpart EEEEE specifies requirements for operation of CMS and CEMS.
63.8(c)(5)	Continuous opacity monitoring system (COMS) Minimum Procedures	No	Subpart EEEEE does not require COMS.
63.8(g)(5)	Data reduction	No	Subpart EEEEE specifies data reduction requirements.
63.9	Notification requirements	Yes	Except: for opacity performance tests, Subpart EEEEE allows the notification of compliance status to be submitted with the semiannual compliance report or the semiannual part 70 monitoring report.
63.10(a)–(b), (c)(1)–(6), (c)(9)–(15), (d)(1)–(2), (e)(1)–(2), (f)	Recordkeeping and reporting requirements	Yes	Additional records for CMS in §63.10(c)(1)–(6), (9)–(15) apply only to CEMS.
63.10(c)(7)–(8)	Records of excess emissions and parameter monitoring exceedances for CMS	No	Subpart EEEEE specifies records requirements.
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes	
63.10(e)(3)	Excess emissions reports	No	Subpart EEEEE specifies reporting requirements.
63.10(e)(4)	Reporting COMS data	No	Subpart EEEEE data does

			not require COMS.
63.11	Control device requirements	No	Subpart EEEEE does not require flares.
63.12	State authority and delegations	Yes	
63.13–63.15	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality	Yes	

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7223, February 7, 2008]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 **Significant Permit Modification.**

Source Description and Location

Source Name:	Dalton Corporation, Warsaw Manufacturing Facility
Source Location:	1900 E. Jefferson Street, Warsaw, IN 46580
County:	Kosciusko
SIC Code:	3321
Operation Permit No.:	T 085-6708-00003
Operation Permit Issuance Date:	May 9, 2007
Significant Permit Modification No.:	085-25675-00003
Permit Reviewer:	Josiah Balogun

Existing Approvals

The source was issued Part 70 Operating Permit No. 085-6708-00003 on May 9, 2007.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment as of June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

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

(b) PM2.5
Kosciusko County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Other Criteria Pollutants
Kosciusko County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

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 (tons/year)
PM	478.84
PM10	440.72
SO_2	117.56
VOC	1,078.76
CO	16,512.17
NO_x	28.50

(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(gg)(1).

(b) These emissions are based upon Part 70 Operating Permit No.T085-6708-00003.

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

HAPs	Potential To Emit (tons/year)
Single HAP	greater than 10
Total HAPs	greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Dalton Corporation, Warsaw Manufacturing Facility on December 12, 2007, relating to the conversion of the existing Hot Box Core Making Line #9 to a Phenolic Urethane Core Making Line #9 and the construction of an additional natural gas fired core oven, identified as Phenolic Urethane Core oven #10. The following is a list of the existing and new emission units and pollution control device which are being converted to use Phenolic Urethane resin and catalyst. No physical modifications of the existing units are proposed in this modification:

Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

One (1) Phenolic Urethane Core Making Line #9, initially constructed in 2002 as a hotbox process and modified in 2008, with a nominal sand throughput of 18.0 tons of sand per hour. The Phenolic Urethane Core Making line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 and modified in 2008, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, constructed in 2002 and modified in 2008, three (3) Core Wash Dip Tanks and two (2) natural gas fired Core Ovens:

(1) One (1) Phenolic Urethane Core Machine #31 and its corresponding Core Wash Dip Tank #31and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #31 are uncontrolled.

Emissions from the Core Wash Dip Tank #31 are uncontrolled.

(2) One (1) Phenolic Urethane Core Machine #32, and its corresponding Core Wash Dip Tank #32 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #32 are uncontrolled.

Emissions from the Core Wash Dip Tank #32 are uncontrolled.

(3) One (1) Phenolic Urethane Core Machine #33, and its corresponding Core Wash Dip Tank #33 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #33 are uncontrolled.

Emissions from the Core Wash Dip Tank #33 are uncontrolled.

(A) One (1) natural gas fired Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour;

The only new emission unit being constructed at the source is the Core Oven #10.

(B) One (1) natural gas fired Core Oven #10 has a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour;

(d) One (1) electric Phenolic Urethane Core Oven #5.

Emissions from the Phenolic Urethane Core Oven #5 are uncontrolled.

Dalton Corporation, Warsaw manufacturing Plant has stated that the modification of the Phenolic Urethane Core Making Line #9 will not directly result in more castings being produced at the source. Additionally, the project will not cause an increase in the utilization of any other existing/unmodified processes at the plant.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this 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.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.05
PM10	0.2
SO_2	0.02
VOC	0.1
CO	2.2
NO_x	2.6

HAPs	Potential To Emit (tons/year)
Single HAP	less than 10
Total HAPs	less than 25

This Permit modification will be incorporated into the Part 70 Operation Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because this permit modification requires a case- by-case determination of emission limits.

Permit Level Determination – PSD

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	PM	PM10	SO_2	VOC	CO	NO_X
Phenolic Urethane Core Making Line #9						
Phenolic Urethane Resin	--	--	--	4.28	--	--
Phenolic Urethane Catalyst	--	--	--	16.47	--	--
P.U. Core Box Cleaner	--	--	--	0.86	--	--
P.U. Release Agent	--	--	--	0.63	--	--
P.U. Core Wash	--	--	--	2.46	--	--
P.U. Core Oven #9	--	--	--	0.1	--	--
P.U. Core Oven #10	0.05	0.2	0.02	0.1	2.2	2.6
Total after Modification	0.05	0.2	0.02	24.9	2.2	2.6
Total before Modification	--	--	--	24.5	--	--
Increase due to Modification	0.05	0.2	0.02	0.4	2.2	2.6
Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emissions increases are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

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

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

(b) The gray Iron foundry is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Iron and Steel Foundries, (40 CFR 63, Subpart EEEEE, and 326 IAC 20-1-1. Pursuant to this rule, the foundry must comply with 40 CFR 63 Subpart EEEEE on and there after the date that is three years after the effective date of the rule, except as provided in paragraph (d), or accept and meet an enforceable HAP emission limit below the major source threshold prior to three years after the effective date of the rule. The requirements of 40 CFR 63, Subpart EEEEE only apply to triethylamine (TEA), phenolic urethane cold box mold or core making lines at iron and steel foundries. Therefore, since the phenolic urethane core making operations being constructed in this modification use DMIPA as catalyst and do not use TEA catalyst, the requirements of 40 CFR 63 are not applicable to the Phenolic urethane core making line #9.

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Phenolic Urethane Core making (VOC)	N	Y	325.0	325.0	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to the Phenolic Urethane Core making as part 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)
PSD applicability is discussed under the Permit Level Determination - PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of the Phenolic Urethane Core Making Line #9 will emit 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 is not applicable to the emission unit.

326 IAC 8-1-6 (New facilities; general reduction requirements)
The Phenolic urethane Core making #9 has uncontrolled VOC emissions greater than 25 tons per year. The VOC emissions shall be limited as follows:

(a) The amount of resin usage in the new phenolic urethane core making operations shall not exceed 295,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The amount of catalyst usage in the new phenolic urethane core making operations shall not exceed 32,935 pounds per twelve (12) consecutive month period, with compliance determined at the end of the month.

(c) The VOC emissions from the phenolic urethane core making operation shall not exceed 0.02904 pounds VOC per pounds of resin.

Compliance with these limits, combined with potential VOC emissions from the P.U. core box cleaner, P.U release agent, P.U. core wash, P.U. core oven #9 and P.U. core oven #10 will limit the VOC emissions from the phenolic urethane core making operation to less than 25 tons per year and render 326 IAC 8-1-6 (New Facilities, General Reduction requirements) not applicable to the Phenolic Urethane Core Making #9.

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.

Testing Requirements

The baghouse for PM and PM10 control on the core sand handling operation only needs to operate at a minimum overall efficiency of 63% in order to demonstrate compliance with 326 IAC 6-3-2. The dust collector is estimated to have an overall control efficiency of 91%. Therefore, PM and PM10 shall not be subject to the testing requirements.

VOC testing is not required for the core making process line #9 because in September 2007 the applicant conducted an IDEM approved stack test on an other Phenolic Urethane core making process at this plant that uses all of the same materials (resin, catalyst, core wash, and core box cleaner). Therefore, the results of the previous test are representative of the emissions from the core process line #9 and no further testing is necessary.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T085-6708-00003. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1 Dalton Corporation will convert the Hot Box Core Making Line #9 in Section A.2 under Section D.8 to Phenolic Urethane Core Making Line #9 at a later date (after the construction of the Phenolic Urethane). Therefore, all references to the "Hot Box" for Core making #9 have been deleted from Section A.2 and the Phenolic Urethane Core Making Line #9 has been added to Section A.2 under subsection 14 and all other subsections have been renumbered in the permit accordingly. All the emission points connected to Northeast (NE) Sand Silo, enclosed Pneumatic Sand transporter #1, Sand Hopper #9 and electric Sand Heater #9 have been deleted from the permit.

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:

....

SECTION D.8

(11) **Hot Box Core Making Line #6** (also known as Mercury Marine)

....

– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

....

(12) **Hot Box Core Making Line #7**

....

(1) ******************
– ~~Hot Box~~ Core Making Line #9,

(2) *****************
– ~~Hot Box~~ Core Making Line #9,

(3) ******************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(4) ******************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(13) **Hot Box Core Making Line #9**

....

(1) ******************

~~The Northeast (NE) Sand Silo is common to:~~
~~– Pneumatic Sand Transporter #1,~~
~~– Hot Box Core Making Line #7,~~
~~– Hot Box Core Making Line #9,~~
~~– Phenolic Urethane Core Making Line #8, and~~
~~– Large Core Production Cell Lines #10 and #11.~~

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper ~~#7~~ **#9**.

~~The Pneumatic Sand Transporter #1 is common to:~~
~~– Northeast (NE) Sand Silo,~~
~~– Hot Box Core Making Line #7,~~
~~– Hot Box Core Making Line #9,~~
~~– Phenolic Urethane Core Making Line #8, and~~
~~– Large Core Production Cell Lines #10 and #11.~~

(3) One (1) ~~Hot Box~~ Sand Hopper #9, constructed in 2002.
....

~~The Baghouse Z is common to:~~
~~– Hot Box Sand Hopper #7,~~
~~– Hot Box Sand Heaters #6 and #7,~~
~~– Hot Box Sand Hopper #9,~~
~~– Hot Box Sand Heater #9,~~
~~– Phenolic Urethane Core Sand Hopper #8,~~
~~– Phenolic Urethane Sand Heater #5, and~~
~~– Phenolic Urethane Sand Heater #8.~~

(4) **************

~~The Baghouse Z is common to:~~
~~– Hot Box Sand Hopper #7,~~
~~– Hot Box Sand Heaters #6 and #7,~~
~~– Hot Box Sand Hopper #9,~~
~~– Hot Box Sand Heater #9,~~
~~– Phenolic Urethane Core Sand Hopper #8,~~
~~– Phenolic Urethane Sand Heater #5, and~~
~~– Phenolic Urethane Sand Heater #8.~~

(b) One (1) ~~Hot Box~~ Sand Mixer #9, constructed in 2002 **and modified in 2008**, with a nominal throughput of 18 tons of sand per hour.

Emissions from the ~~Hot Box~~ Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, **and** one (1) natural gas fired Core Oven:

(1) One (1) natural gas fired Hot Box Core Machine #8, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #8 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 4.5 tons of sand per hour.
....

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #8 are uncontrolled.

(2) One (1) natural gas fired Hot Box Core Machine #9, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #9 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

....

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #9 are uncontrolled.

(3) One (1) natural gas fired Hot Box Core Machine #10, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #10 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

....

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #10 are uncontrolled.

The natural gas fired Hot Box Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour ~~and is common to~~:
~~– Hot Box Core Machines #8 through #10.~~

~~Emissions from the Hot Box Core Oven #9 are uncontrolled.~~

....

<u>Dalton intends to convert Line #9 from Hot Box to a Phenolic Urethane Core making Line #9</u>

Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

(14) Phenolic Urethane Core Making Line #9 (also referred to as Core making Line #9)

One (1) Phenolic Urethane Core Making Line #9, initially constructed in 2002 as a Hot Box process and modified in 2008, with a nominal sand throughput of 18.0 tons of sand per hour. The Phenolic Urethane Core Making line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Sand Hopper #~~7~~ **#9**.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 **and modified in 2008**, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, **constructed in 2002 and modified in 2008**, three (3) Core Wash Dip Tanks **and** two (2) natural gas fired Core Ovens:

(1) One (1) ~~natural gas - fired~~ Phenolic Urethane Core Machine #31, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding Core Wash Dip Tank #31and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #31 are uncontrolled.

Emissions from the Core Wash Dip Tank #31 are uncontrolled.

(2) One (1) ~~natural gas - fired~~ Phenolic Urethane Core Machine #32, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding Core Wash Dip Tank #32 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #32 are uncontrolled.

Emissions from the Core Wash Dip Tank #32 are uncontrolled.

(3) One (1) ~~natural gas - fired~~ Phenolic Urethane Core Machine #33, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding ~~Hot~~ Core Wash Dip Tank #33 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #33 are uncontrolled.

Emissions from the Core Wash Dip Tank #33 are uncontrolled.

(A) One (1) natural gas fired Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour;

The only new emission unit being constructed at the source is the Core Oven #10.

(B) One (1) natural gas fired Core Oven #10 has a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour;

(d) One (1) electric Phenolic Urethane Core Oven #5.

Emissions from the Phenolic Urethane Core Oven #5 are uncontrolled.

SECTION D.9

(~~18~~**19**) **Phenolic Urethane Core Making Line #5**

....

(4) ************************

– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(~~19~~**20**) **Phenolic Urethane Core Making Line #8**

....

(1) ********************
– ~~Hot Box~~ Core Making Line #9,

(2) ******************
– ~~Hot Box~~ Core Making Line #9,

(3) *****************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(4) *******************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

SECTION D.10

(~~20~~**21**) **Shell Core Making Process**
****

SECTION D.11

(~~21~~**22**) **Air Set Core Making Process**
****

SECTION D.12

(~~22~~**23**) **Large Core Production Cell**
****

(a) *******************

– ~~Hot Box~~ Core Making Line #9,

(b) ********************

– ~~Hot Box~~ Core Making Line #9,

Change 2 The Hot Box Making Line #9 will be converted to Phenolic Urethane Core Making Line #9. Therefore, Conditions D.1.1, D.2.1, D.3.1, D.5.1and D.6.1 have been revised as follows.

D.1.1 PM, PM_{10}, and Lead PSD Minor Limits [326 IAC 2-2]

....

~~Compliance with these limits and the limits specified in Conditions D.2.1, D.3.1, D.5.1, D.6.1, D.8.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.~~

Compliance with these limits and the limits specified in Conditions D.2.1, D.3.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

....

D.2.1 PM, PM_{10}, SO_2, NO_X, VOC, CO, and Lead PSD Minor Limits [326 IAC 2-2]

....

~~Compliance with these limits and the limits specified in Conditions D.1.1, D.3.1, D.5.1, D.6.1, D.8.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.~~

Compliance with these limits and the limits specified in Conditions D.1.1, D.3.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

....

D.3.1 PM, PM_{10}, SO_2, NO_X, VOC, and Lead PSD Minor Limits [326 IAC 2-2]

....

~~Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.5.1, D.6.1, D.8.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.~~

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.5.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

....

D.5.1 PM and PM_{10} PSD Minor Limits [326 IAC 2-2]

....

~~Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.6.1, D.8.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.~~

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.6.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

....

D.6.1 PM, PM_{10}, and Lead PSD Minor Limits [326 IAC 2-2]

....

~~Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1, D.8.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.~~

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and D.8.2(b) will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (the former Hot Box core making Line #9 installation), and to this Significant Permit Modification No. 085-25675-00003 (Conversion of the hot box core making line #9 to Phenolic Urethane core making line #9).

…….

Change 3 All references to the Hot Box for Core Making Line #9 have been deleted from Section D.8, Phenolic Urethane Core making Line #9 has been moved to Section D.8 under the subsection 14 and the other subsections have been renumbered accordingly. All other conditions have been revised accordingly.

SECTION D.8 FACILITY OPERATION CONDITIONS

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

(11) **Hot Box Core Making Line #6** (also known as Mercury Marine)
One (1) Hot Box Core Making Line #6, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #6 consists of the following emission units:

(a) One (1) Core Sand Handling Process, constructed in 1991, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Hot Box Bag Feeder, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Bag Feeder are uncontrolled.

(2) One (1) Hot Box Manual Elevator, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.

Emissions from the Hot Box Manual Elevator are uncontrolled.

(3) One (1) natural gas fired Hot Box Sand Heater #6, constructed in 1991, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #6 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
– Hot Box Sand Hopper #7,
– Hot Box Sand Heaters #6 and #7,
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,
– Phenolic Urethane Core Sand Hopper #8,
– Phenolic Urethane Sand Heater #5, and
– Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #6, constructed in 1991, with a nominal throughput of 0.7 tons of sand per hour.
Emissions from the Hot Box Sand Mixer #6 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #1, constructed in 1991, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour.
Emissions from the Hot Box Core Machine #1 are uncontrolled.

(12) **Hot Box Core Making Line #7**
One (1) Hot Box Core Making Line #7, constructed in 1996, with a nominal sand throughput of 0.70 tons of sand per hour. The Hot Box Core Making Line #7 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 0.70 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

The Northeast (NE) Sand Silo is common to:
- Pneumatic Sand Transporter #1,
- Hot Box Core Making Line #7,
- ~~Hot Box~~ Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Hot Box Sand Hopper #7.

The Pneumatic Sand Transporter #1 is common to:
- Northeast (NE) Sand Silo,
- Hot Box Core Making Line #7,
- ~~Hot Box~~ Core Making Line #9,
- Phenolic Urethane Core Making Line #8, and
- Large Core Production Cell Lines #10 and #11.

(3) One (1) Hot Box Sand Hopper #7, constructed in 1996.

The particulate emissions from the Hot Box Sand Hopper #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- ~~Hot Box~~ Sand Hopper #9,
- ~~Hot Box~~ Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(4) One (1) natural gas fired Hot Box Sand Heater #7, constructed in 1996, with a maximum heat input capacity of 115,200 British thermal units (Btu) per hour.

The particulate emissions from the Hot Box Sand Heater #7 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

The Baghouse Z is common to:
- Hot Box Sand Hopper #7,
- Hot Box Sand Heaters #6 and #7,
- ~~Hot Box~~ Sand Hopper #9,
- ~~Hot Box~~ Sand Heater #9,
- Phenolic Urethane Core Sand Hopper #8,
- Phenolic Urethane Sand Heater #5, and
- Phenolic Urethane Sand Heater #8.

(b) One (1) Hot Box Sand Mixer #7, constructed in 1996, with a nominal throughput of 0.70 tons of sand per hour.
Emissions from the Hot Box Sand Mixer #7 are uncontrolled.

(c) One (1) natural gas fired Hot Box Core Machine #26, constructed in 1995, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour.
Emissions from the Hot Box Core Machine #26 are uncontrolled.

(13) **Hot Box Core Making Line #9 (also referred to as Core Making Line #9)**
One (1) Hot Box Core Making Line #9, constructed in 2002, with a nominal sand throughput of 18.0 tons of sand per hour. The Hot Box Core Making Line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

~~The Northeast (NE) Sand Silo is common to:~~
~~– Pneumatic Sand Transporter #1,~~
~~– Hot Box Core Making Line #7,~~
~~– Hot Box Core Making Line #9,~~
~~– Phenolic Urethane Core Making Line #8, and~~
~~– Large Core Production Cell Lines #10 and #11.~~

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the ~~Hot Box~~ Sand Hopper ~~#7~~ **#9**.

~~The Pneumatic Sand Transporter #1 is common to:~~
~~– Northeast (NE) Sand Silo,~~
~~– Hot Box Core Making Line #7,~~
~~– Hot Box Core Making Line #9,~~
~~– Phenolic Urethane Core Making Line #8, and~~
~~– Large Core Production Cell Lines #10 and #11.~~

(3) One (1) ~~Hot Box~~ Sand Hopper #9, constructed in 2002.

The particulate emissions from the ~~Hot Box~~ Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

~~The Baghouse Z is common to:~~
~~– Hot Box Sand Hopper #7,~~
~~– Hot Box Sand Heaters #6 and #7,~~
~~– Hot Box Sand Hopper #9,~~
~~– Hot Box Sand Heater #9,~~
~~– Phenolic Urethane Core Sand Hopper #8,~~
~~– Phenolic Urethane Sand Heater #5, and~~
~~– Phenolic Urethane Sand Heater #8.~~

(4) One (1) electric ~~Hot Box~~ Sand Heater #9, constructed in 2002.

The particulate emissions from the ~~Hot Box~~ Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

~~The Baghouse Z is common to:~~
~~– Hot Box Sand Hopper #7,~~
~~– Hot Box Sand Heaters #6 and #7,~~
~~– Hot Box Sand Hopper #9,~~
~~– Hot Box Sand Heater #9,~~
~~– Phenolic Urethane Core Sand Hopper #8,~~
~~– Phenolic Urethane Sand Heater #5, and~~
~~– Phenolic Urethane Sand Heater #8.~~

(b) One (1) ~~Hot Box~~ Sand Mixer #9, constructed in 2002 **and modified in 2008**, with a nominal throughput of 18 tons of sand per hour.

Emissions from the ~~Hot Box~~ Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, three (3) Core Wash Dip Tanks, **and** one (1) natural gas fired Core Oven:

(1) One (1) natural gas fired Hot Box Core Machine #8, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #8 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Hot Box Core Machine #8 are uncontrolled.

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #8 are uncontrolled.

(2) One (1) natural gas fired Hot Box Core Machine #9, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #9 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #9 are uncontrolled.

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #9 are uncontrolled.

(3) One (1) natural gas fired Hot Box Core Machine #10, with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour, and its corresponding ~~Hot Box~~ Core Wash Dip Tank #10 and natural gas fired ~~Hot Box~~ Core Oven #9, each with a nominal throughput of 6.0 tons of sand per hour.

Emissions from the Hot Box Core Machine #10 are uncontrolled.

Emissions from the ~~Hot Box~~ Core Wash Dip Tank #10 are uncontrolled.

The natural gas fired Hot Box Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour ~~and is common to~~:
~~– Hot Box Core Machines #8 through #10.~~

~~Emissions from the Hot Box Core Oven #9 are uncontrolled~~.

(d) One (1) electric Hot Box Core Oven #5.

Emissions from the Hot Box Core Oven #5 are uncontrolled.

<u>Dalton intends to convert Line #9 from a hot box to a Phenolic Urethane cold box Line</u>

(14) Phenolic Urethane Core Making Line #9 (also referred to as Core Making Line #9)
One (1) Phenolic Urethane Core Making Line #9, initially constructed in 2002 as a hotbox process and modified in 2008, with a nominal sand throughput of 18.0 tons of sand per hour. The Phenolic Urethane Core Making line #9 consists of the following emission units:

(a) One (1) Core Sand Handling Process, with a nominal sand throughput of 18.0 tons of sand per hour:

(1) One (1) Northeast (NE) Sand Silo, constructed prior to 1977, with an integral bin vent to control particulate emissions when loading.

(2) One (1) enclosed Pneumatic Sand Transporter #1, constructed in 1996, for transferring sand from the Northeast (NE) Sand Silo to the Sand Hopper #9.

(3) One (1) Sand Hopper #9, constructed in 2002.

The particulate emissions from the Sand Hopper #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(4) One (1) electric Sand Heater #9, constructed in 2002.

The particulate emissions from the Sand Heater #9 are captured and controlled by a baghouse, identified as Baghouse Z that exhausts through a stack, identified as Stack Z.

(b) One (1) Sand Mixer #9, constructed in 2002 **and modified in 2008**, with a nominal throughput of 18 tons of sand per hour.

Emissions from the Sand Mixer #9 are uncontrolled.

(c) Three (3) Core Machines, **constructed in 2002 and modified in 2008**, three (3) Core Wash Dip Tanks **and** two (2) natural gas fired Core Ovens:

(1) One (1) ~~natural gas -fired~~ Phenolic Urethane Core Machine #31, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding Core Wash Dip Tank #31and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #31 are uncontrolled.

Emissions from the Core Wash Dip Tank #31 are uncontrolled.

(2) One (1) ~~natural gas -fired~~ Phenolic Urethane Core Machine #32, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding Core Wash Dip Tank #32 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #32 are uncontrolled.

Emissions from the Core Wash Dip Tank #32 are uncontrolled.

(3) One (1) ~~natural gas -fired~~ Phenolic Urethane Core Machine #33, ~~with a maximum heat input capacity of 1.5 million British thermal units (MMBtu) per hour~~ and its corresponding ~~Hot~~ Core Wash Dip Tank #33 and natural gas fired Core Oven #9 or #10, each with a nominal throughput of 4.5 tons of sand per hour.

Emissions from the Phenolic Urethane Core Machine #33 are uncontrolled.

Emissions from the Core Wash Dip Tank #33 are uncontrolled.

(A) One (1)natural gas fired Core Oven #9 has a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour;

The only new emission unit being constructed at the source is the Core Oven #10.

(B) One (1) natural gas fired Core Oven #10 has a maximum heat input capacity of 6.0 million British thermal units (MMBtu) per hour;

(d) One (1) electric Phenolic Urethane Core Oven #5.

Emissions from the Phenolic Urethane Core Oven #5 are uncontrolled.

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

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

D.8.1 VOC and HAPs PSD Minor Limits [326 IAC 2-2] [326 IAC 8-1-6] [326 IAC 2-4.1-1]

(a) Pursuant to SSM 085-14027-00003, issued on February 22, 2002 and in order to render the requirements of 326 IAC 8-1-6 (New Facilities General Reduction Requirements), 326 IAC 2-4.1-1 (New Source Toxics Control), and 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply **to the Hot Box Core making Line #9 until it is converted to the Phenolic Urethane Core Making Line #9**:

(~~a~~**1**) Resin Input limit
The amount of resin input to the ~~Hot Box~~ Sand Mixer #9 shall be limited to 72,783.76 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Resin shall not exceed 3.5% by weight.

(~~b~~**2**) Catalysts Input Limit
The amount of catalyst input to the ~~Hot Box~~ Sand Mixer #9 shall be limited to 14,716.51 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Catalyst shall not exceed 7.7% by weight.

(~~c~~**3**) Release Agent Usage Limit
The amount of release agent usage for the:

(1) Hot Box Core Machine #8,

(2) Hot Box Core Machine #9, and

(3) Hot Box Core Machine #10,
shall be limited to 6,828.31 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Release Agent shall not exceed 1.2% by weight.

This release agent limit is for the Hot Box Core Machine #8, Hot Box Core Machine #9, and Hot Box Core Machine #10 combined.

(~~d~~**4**) Core Wash Input Limit
The amount of core wash input to the:

(1) Core Wash Dip Tank #8,

(2) Core Wash Dip Tank #9, and

(3) Core Wash Dip Tank #10

shall be limited to 39,207.57 gallons per twelve (12) consecutive month period, rolled on a monthly basis, with compliance determined at the end of each month.

The VOC content of the Core Wash shall not exceed 2.0% by weight.

This core wash limit is for the Core Wash Dip Tank #8, Core Wash Dip Tank #9, and Core Wash Dip Tank #10 combined.

(~~e~~**5**) VOC Limit
In conjunction with the above limits and the emission ratio of 2.1215 pounds per ton of sand, the VOC PTE from the:

(1) ~~Hot Box~~ Sand Mixer #9,

(2) Hot Box Core Machine #8,

(3) Hot Box Core Machine #9,

(4) Hot Box Core Machine #10,

(5) Core Wash Dip Tank #8,

(6) Core Wash Dip Tank #9, and

(7) Core Wash Dip Tank #10

shall be limited to less than 25 tons per year.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1, D.6.1, and D.8.2 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.

(b) Pursuant to Significant Permit Modification 085-25675-00003 the following conditions shall apply to the Phenolic Urethane Core Making Line #9 (upon startup of the Core making Line #9 as a Phenolic Urethane Core Making);

(1) The amount of resin usage in the phenolic urethane core making line #9 operations shall not exceed 295,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The amount of catalyst usage in the phenolic urethane core making line #9 operations shall not exceed 32,935 pounds per twelve (12) consecutive month period, with compliance determined at the end of the month.

(3) The VOC emissions from the phenolic urethane core making operation shall not exceed 0.02904 pounds VOC per pounds of resin.

A summary of the above VOC emission limits are included in the following table:

Usage Limit (pounds per year)*	VOC Content Limit (lb VOC per lb material)	VOC Emission Limit (tons/yr)
295,000 (resin)	**0.02904**	**4.35**
32,935 (catalyst)	**1.0**	**16.47**
Total	**--**	**20.74**

Compliance with these limits, combined with potential VOC emissions from the core box cleaner, release agent, core wash, core oven #9 and core oven #10 will limit the VOC emissions from the phenolic urethane core making operation to less than 25 tons per year and render 326 IAC 8-1-6 (New Facilities, General Reduction requirements) not applicable to the Phenolic Urethane Core Making Line #9.

D.8.2 PM and PM_{10} PSD Minor Limits [326 IAC 2-2]

(a) Pursuant to SSM 085-14027-00003, issued on February 22, 2002 and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply **to the Hot Box Core making Line #9 until it is converted to the Phenolic Urethane Core Making Line #9**:

(~~a~~**1**) PM Limit (Stack Z)
The amount of sand input to the Hot Box Sand Mixer #9 shall not exceed a rate of 18.0 tons per hour and 0.32 pounds of PM per ton of sand handled.

This sand input limit is equivalent to limited PTE PM of less than 24.50 tons per year. Thus, the requirements of 326 IAC 2-2 (PSD) are not applicable.

(~~b~~**2**) PM_{10} Limit (Stack Z)
The amount of sand input to the Hot Box Sand Mixer #9 shall not exceed a rate of 18.0 tons per hour and 0.18 pounds of PM_{10} per ton of sand handled.

This sand input limit is equivalent to limited PTE PM_{10} of less than 14.50 tons per year. Thus, the requirements of 326 IAC 2-2 (PSD) are not applicable.

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1, D.6.1, and D.8.1 will render the requirements of 326 IAC 2-2 (PSD) not applicable to the Hot Box Core Making Line #9.

Compliance with the above mentioned PM limits also demonstrate compliance with the PM limits for Stack Z in Condition D.8.3 – Particulate Emission Limitation.

(b) **Pursuant to SSM 085-14027-00003, issued on February 22, 2002, and revised by SPM 085-25675-00003 the PM and PM10 emissions from the Phenolic Urethane Core Making Line #9 (Upon startup of Core Making Line #9 as a Phenolic Urethane Core making operation) shall be limited as follows:**

(1) **PM Limit (Stack Z)**
The amount of throughput of sand to the Phenolic Urethane Core Making Line #9 shall not exceed 12,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) **Total PM emissions from the Phenolic Urethane Core Making Line #9 shall not**

exceed 0.33 pounds PM per ton of sand throughput;

(3) PM10 Limit (Stack Z)
Total PM_{10} emissions from the Phenolic Urethane Core Making Line #9 shall not exceed 0.065 pound PM_{10} per ton of sand throughput;

Compliance with these limits and the limits specified in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and D.6.1 will render the requirements of 326 IAC 2-2 (PSD) not applicable to permit No. 085-14027-00003 (Hot Box core making Line #9 installation), and to this Significant Permit No. 085-25675-00003 (conversion of the Hot Box Core making Line #9 to Phenolic Urethane Core Making Line #9.

Compliance with the above mentioned PM limits also demonstrates compliance with the PM limits for Stack Z in Condition D.8.3 - Particulate Emission Limitations for Manufacturing Processes

D.8.3 Particulate Emission Limitation**s for Manufacturing Processes** [326 IAC 6-3-2]

....

(d) ***************
– ~~Hot Box~~ Core Making Line #9,

(e) *****************
– ~~Hot Box~~ Core Making Line #9,

....

(h) ~~Hot Box~~ Sand **Weigh** Hopper #9 (Baghouse Z, Stack Z)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the ~~Hot Box~~ Sand **Weigh** Hopper #9 is 28.4 pounds per hour when operating at a process weight rate of ~~18.0 tons per hour~~ **36,000 pounds per hour**.

(i) ~~Hot Box~~ Sand**/Resin** Mixer #9
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the ~~Hot Box~~ Sand**/Resin** Mixer #9 is 28.4 pounds per hour when operating at a process weight rate of ~~18.0 tons per hour~~ **36,000 pounds per hour**.

(j) The pounds per hour limitation was calculated with the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour ~~shall be accomplished~~ **was determined** 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 greater than 60,000 pounds per hour ~~shall be accomplished~~ **was determined** by use of the equation:

$E = 55\ P^{0.11} – 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

....

D.8.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

....

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for ~~the~~ **these facilities and their control devices**:

~~(a) Hot Box Bag Feeder,~~

~~(b) Hot Box Manual Elevator,~~

~~(c) Natural gas fired Sand Heater #6,~~

~~(d) Hot Box Sand Mixer #6,~~

~~(e) Hot Box Core Machine #1~~,
~~(f) Northeast (NE) Sand Silo Bin Vent,~~

~~(g) Pneumatic Sand Transporter #1,~~

~~(h) Hot Box Sand Hopper #7,~~

~~(i) Natural gas fired Sand Heater #7,~~

~~(j) Hot Box Sand Mixer #7,~~

~~(k) Hot Box Core Machine #26,~~

~~(l) Hot Box Sand Hopper #9,~~

~~(m) Electric Hot Box Sand Heater #9,~~

~~(n) Hot Box Sand Mixer #9,~~

~~(o) Hot Box Core Machine #8,~~

~~(p) Hot Box Core Machine #9,~~

~~(q) Hot Box Core Machine #10, and~~

~~(r) Baghouse Z.~~

....

Compliance Determination Requirements

D.8.5 Emission Controls Operation

(a) **************
– ~~Hot Box~~ Core Making Line #9,

(b) **************

(4) ~~Hot Box~~ Sand Hopper #9, or

(5) ~~Hot Box~~ Sand Heater #9,

– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

....

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

D.8.6 Visible Emissions Notations

(a) Visible emission notations of the:

~~(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust, and~~

~~(2)~~ Baghouse Z exhaust stack (Stack Z)

....

D.8.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) *****************

(4) ~~Hot Box~~ Sand Hopper #9, and

(5) ~~Hot Box~~ Sand Heater #9.

....

– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

....

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

D.8.9 Record Keeping Requirements

(a) To document compliance with Condition D.8.1**(a)** – VOC and HAPs PSD Minor Limits, the Permittee shall maintain records of the amounts of:

(1) resin,

(2) catalyst,

(3) release agent, and

(4) core wash

used in the Hot Box Core Making Line #9 **until it is converted to Phenolic Urethane core Making Line #9**. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the VOC content of the resin, catalyst, release agent, and core wash used.

(b) To document compliance with Condition D.8.1(b), the Permittee shall maintain records of the resin and catalyst usage for the Phenolic urethane Core making Line #9 for each month. The Permittee shall keep records of suppliers' data sheets and material safety data sheets (MSDS) necessary to verify the VOC contents of the resin, core wash, release agent and core box cleaner used. These recordkeeping requirements shall apply to the core making line #9 only after it has been converted to a Phenolic Urethane Core making Line.

(~~b~~**c**) To document compliance with D.8.2**(b)** – PM and PM_{10} PSD Minor Limits, the Permittee shall maintain records of the amount of sand input to the Hot Box Sand Mixer #9 **on a monthly basis**.

~~(c) To document compliance with Condition D.8.6 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust, and~~

~~(2) Baghouse Z exhaust stack (Stack Z)~~

~~and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.8.6, the Permittee shall maintain daily records of visible emission notations of the baghouse Z stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(d) To document compliance with Condition D.8.7 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings across Baghouse Z, and make such records available upon request to IDEM, OAQ.~~

(e) To document compliance with Condition D.8.7, the Permittee shall maintain the daily records of the pressure drop reading across baghouse Z. 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~~ **f**) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.8.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition**s** D.8.1 – VOC and HAPs PSD Minor Limits **and D.8.2(b),** shall be submitted to the address listed in Section C – General Reporting Requirements, using the reporting forms located at the end of this permit, or the equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).1

Change 4 All references to the Hot Box for Core Making Line #9 have been deleted from Section D.9 and D.12.

SECTION D.9 FACILITY OPERATION CONDITIONS

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

....

(~~18~~ **19**) **Phenolic Urethane Core Making Line #5**

....

(4) ********************

– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(20) **Phenolic Urethane Core Making Line #8**

(1) ********************
– ~~Hot Box~~ Core Making Line #9,

(2) *******************
– ~~Hot Box~~ Core Making Line #9,

(3) **************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

(4) ****************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

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

....

D.9.2 Particulate Emission Limitation [326 IAC 6-3-2]

(a) *********************
– ~~Hot Box~~ Core Making Line #9,
****

(c) *****************
– ~~Hot Box~~ Core Making Line #9,

D.9.4 Emission Controls Operation

(a) *********************
– ~~Hot Box~~ Core Making Line #9,

(e) *****************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

D.9.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

....

(c) ******************
– ~~Hot Box~~ Sand Hopper #9,
– ~~Hot Box~~ Sand Heater #9,

....

SECTION D.12 FACILITY OPERATION CONDITIONS

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

....
(a) *****************
– ~~Hot Box~~ Core Making Line #9,
....
(b) *****************
– ~~Hot Box~~ Core Making Line #9,
....

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

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

....

D.12.3 Particulate Emission Limitation [326 IAC 6-3-2]

(a) *************************
– ~~Hot Box~~ Core Making Line #9,

(b) ************************
– ~~Hot Box~~ Core Making Line #9,

D.12.7 Emission Controls Operation

(a) ***********************
– ~~Hot Box~~ Core Making Line #9,

....

Change 5 Quarterly report forms have been added to the permit to demonstrate compliance with Conditions D.8.1(b) and D.8.2(b)

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

Part 70 Quarterly Report

Source Name: **Dalton Corporation, Warsaw Manufacturing Facility**
Source Address: **1900 E. Jefferson Street, Warsaw, Indiana 46580**
Mailing Address: **P.O Box 1388 Warsaw, Indiana 46581**
Part 70 Permit No.: **T085-6708-00003**
Facility: **Phenolic Urethane Core Making #9**
Parameter: **PM and PM10**
Limit: **The throughput of sand to the Phenolic Urethane Core Making #9 shall not exceed 12,000 tons of sand per twelve (12) consecutive month period.**

QUARTER : **YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2

	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (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: ____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O Box 1388 Warsaw, Indiana 46581
Part 70 Permit No.: T085-6708-00003
Facility: Phenolic Urethane Core Making #9
Parameter: VOC Emissions
Limit: The resin usage for the Phenolic Urethane Core Making #9 shall not exceed 295,000 pounds of resin per twelve (12) consecutive month period.

QUARTER : **YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month (pounds)	Resin Usage Previous 11 Months (pounds)	12 Month Total Resin Usage (pounds)
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: ____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name:	**Dalton Corporation, Warsaw Manufacturing Facility**
Source Address:	**1900 E. Jefferson Street, Warsaw, Indiana 46580**
Mailing Address:	**P.O Box 1388 Warsaw, Indiana 46581**
Part 70 Permit No.:	**T085-6708-00003**
Facility:	**Phenolic Urethane Core Making #9**
Parameter:	**VOC Emissions**
Limit:	**Catalyst usage for the Phenolic Urethane Core Making #9 shall not exceed 32,935 pounds of VOC catalyst per twelve (12) consecutive month period.**

QUARTER : **YEAR:**

Month	**Column 1**	**Column 2**	**Column 1 + Column 2**
	Catalyst Usage This Month (pounds)	**Catalyst Usage Previous 11 Months (pounds)**	**12 Month Total Catalyst Usage (pounds)**
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: ____

Attach a signed certification to complete this report.

Change 6 Sand Mixer #9 designated with "Hot Box" on the Hot Box Core Making Line #9 has been deleted from the quarterly report form.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION
Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Hot Box Core Making Line #9 (~~Hot Box~~ Sand Mixer #9)
Parameters: Amount of Input Resin
Limits: 72,783.76 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the resin shall not exceed 3.5% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _________

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____

Title/Position: ____

Signature: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION
Part 70 Quarterly Report

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Address: 1900 Jefferson Street, Warsaw, Indiana 46580
Mailing Address: P.O. Box 1388, Warsaw, Indiana 46581-1388
Part 70 Permit No.: T 085-6708-00003
Facilities: Hot Box Core Making Line #9 (~~Hot Box~~ Sand Mixer #9)
Parameters: Amount of Input Catalysts
Limits: 14,716.51 gallons per twelve (12) consecutive month period, rolled on a monthly basis, and the VOC content of the catalyst shall not exceed 7.7% by weight. Compliance determined at the end of each month. (Section D.8)

YEAR: _________

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	**Previous 11 Months**	**12 Month Total**

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

Other Changes

Upon further review IDEM, OAQ has made the following changes to the Title V permit T085-6708-00003. (deleted language appears as ~~strikout~~ and the new language **bolded**):

Change 1 IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted a paragraph of Condition B.10 – Preventive Maintenance Plan.

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

....

~~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 Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

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

....

Change 2 For clarification purposes, Condition B.20 - Operational Flexibility has been revised.

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

....

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 **the proposed change.** ~~this permit; and~~ **The Permittee shall attach every such notice to the Permittee's copy of this permit; and**

....

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

Change 3 The last sentences in Condition C.3 (Open Burning) has been deleted because this condition is now federally enforceable and is included in Indiana's State Implementation Plan (SIP).

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. ~~326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable~~.

....

Change 4 On January 22, 2008 U.S. EPA promulgated a rule to address the remand, by the U.S. Court of Appeals for the District of Columbia on June 25, 2005, of the reasonable possibility provisions of the December 31, 2002 major NSR reform rule. IDEM has agreed, with U.S. EPA, to interpret "reasonable possibility" in 326 IAC 2-2 and 326 IAC 2-3 consistent with the January 22, 2008 U.S. EPA rule. To implement this interpretation, IDEM is revising Section C - General Record Keeping Requirements and Section C - General Reporting Requirements.

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

....

(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)) that** a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

....

(d) **If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions”**

(~~2~~**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

(~~3~~**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.

Change 5 The Visible Emission Notation and Parametric Monitoring Requirements in the Record Keeping Requirements in Conditions D.2.12, D.3.12, D.4.16, D.5.8, D.6.9, D.9.11, D.11.7 and D.12.13 has been revised.

D.2.12 Record Keeping Requirements

....

~~(b) To document compliance with Condition D.2.6 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) Wet Scrubber A exhaust stack (Stack A), and~~

~~(2) Baghouse #14 exhaust stack (Stack AD)~~

~~and make such records available upon request to IDEM, OAQ.~~

(b) To document compliance with Condition D.2.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet scrubber A and baghouse #14 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

....

~~(d) To document compliance with Condition D.2.8 – Scrubber Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop and flow rate readings of the Wet Scrubber A and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.2.8– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet scrubber A. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the process did not operate that day).

~~(e) To document compliance with Condition D.2.10 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings of the Baghouse #14 and make such records available upon request to IDEM, OAQ.~~

(e) To document compliance with Condition D.2.10– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #14. 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.3.12 Record Keeping Requirements

....

~~(b) To document compliance with Condition D.3.6 – Visible Emissions Notations:~~

~~(1) The Permittee shall maintain records of the daily visible emission notations of the:~~

~~(A) Herman 1 Shakeout – Wet Collector #2 exhaust stack (Stack C),~~

~~(B) Herman 1 Sand Handling – Wet Collector #2 exhaust stack (Stack C), and~~

~~(C) Herman 1 Sand Handling – Wet Collector #3 exhaust stack (Stack B)~~

~~and make such records available, upon request, to IDEM, OAQ.~~

(1) To document compliance with Condition D.3.7 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet collector #2 and wet collector #3 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

....

~~(c) To document compliance with Condition D.3.7 – Wet Collector Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop and flow rate readings of Wet Collector# 2 and Wet Collector #3, and make such records available, upon request, to IDEM, OAQ.~~

(c) To document compliance with Condition D.3.8– Wet Collector Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet collector #2 and wet collector #3. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the process did not operate that day).

~~(d) To document compliance with Condition D.3.9 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings of Baghouse #1 and Baghouse #13, and make such records available, upon request, to IDEM, OAQ.~~

(d) To document compliance with Condition D.3.10– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop reading across baghouse #1 and baghouse #13. 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.4.16 Record Keeping Requirements

....

~~(d) To document compliance with Condition D.4.10 – Visible Emissions Notations, the Permittee shall maintain records of daily visible emission notations of the:~~

~~(1) Wet Collector #1 exhaust stack (Stack D),~~

~~(2) Wet Collector #4 exhaust stack (Stack E), and~~

~~(3) Baghouse #11 exhaust stack (Stack W)~~

~~and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.4.10 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet collector #1, wet collector #4 and baghouse #11 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(e) To document compliance with Condition D.4.11 – Wet Collector Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop and flow rate readings of:~~

~~(1) Wet Collector #1, and~~

~~(2) Wet Collector #4~~

~~and make such records available upon request to IDEM, OAQ.~~

(e) To document compliance with Condition D.4.11– Wet Collector Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across wet collector #1 and wet collector #4. The Permittee shall include in its daily record when a pressure drop and flow rate reading are not taken and the reason for the lack of a pressure drop and flow rate readings, (e.g. the

process did not operate that day).

~~(f) To document compliance with Condition D.4.13 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings across Baghouse #11 and make such records available upon request to IDEM, OAQ.~~

(f) To document compliance with Condition D.4.13– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #11. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

....

D.5.8 Record Keeping Requirements

....

~~(b) To document compliance with Condition D.5.5 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) Baghouse #2 exhaust stack (Stack G), and~~

~~(2) Baghouse #9 exhaust stack (Stack R),~~

~~and make such records available, upon request, to IDEM, OAQ.~~

(b) To document compliance with Condition D.5.5 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse #2 and baghouse #9 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(c) To document compliance with Condition D.5.6 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings across Baghouse #2 and Baghouse #9, and make such records available upon request to IDEM, OAQ.~~

(c) To document compliance with Condition D.5.6– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #2 and baghouse 9. 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.6.9 Record Keeping Requirements

....

~~(b) To document compliance with Condition D.6.6 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the following exhausts:~~

~~(1) Baghouse #3 exhaust stack (Stack H),~~

~~(2) Baghouse #6 exhaust stack (Stack K),~~

~~(3) Baghouse #12 exhaust stack (Stack X),~~

~~(4) Baghouse #15 exhaust stack (Stack AE), and~~

~~(5) Baghouse #16 exhaust stack (Stack AG)~~

~~and make such records available, upon request, to IDEM, OAQ.~~

(b) To document compliance with Condition D.6.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse #3, baghouse #6, baghouse #12, baghouse #15 and baghouse #16 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(c) To document compliance with Condition D.6.7 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings across the following baghouses:~~

~~(1) Baghouse #3,~~

~~(2) Baghouse #6,~~

~~(3) Baghouse #12,~~

~~(4) Baghouse #15, and~~

~~(5) Baghouse #16~~

~~and make such records available, upon request, to IDEM, OAQ.~~

(c) To document compliance with Condition D.6.7– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse #3, baghouse #6, baghouse #12, baghouse #15 and baghouse #16. 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.9.11 Record Keeping Requirements

....

~~(c) To document compliance with Condition D.9.6 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust,~~
~~(2) South (S) Sand Silo's integrated bin vent stack exhaust,~~

~~(3) Baghouse Q exhaust stack (Stack Q),~~

~~(4) Baghouse U exhaust stack (Stack U), and~~

~~(5) Baghouse Z exhaust stack (Stack Z),~~

~~(6) Acid Scrubber AF exhaust stack (Stack AF)~~

~~and make such records available upon request to IDEM, OAQ.~~

(c) To document compliance with Condition D.9.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission

notations of the baghouse Q, baghouse U, baghouse Z and acid scrubber AF stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(d) To document compliance with Condition D.9.7 – Scrubber Parametric Monitoring, the Permittee shall maintain records of the daily pH, pressure drop and flow rate readings of Acid Scrubber AF, and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.9.7– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the acid scrubber AF. The Permittee shall include in its daily record when the pH, pressure drop and flow rate reading are not taken and the reason for the lack of pH, pressure drop and flow rate readings, (e.g. the process did not operate that day).

~~(e) To document compliance with Condition D.9.9 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings of the following baghouses, and make such records available upon request to IDEM, OAQ:~~

~~(1) Baghouse Q,~~

~~(2) Baghouse U, and~~

~~(3) Baghouse Z.~~

(e) To document compliance with Condition D.9.9– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse Q, baghouse U and baghouse Z. 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.11.7 Record Keeping Requirements

~~(a) To document compliance with Condition D.11.4 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) South (S) Sand Silo's integrated bin vent stack exhaust, and~~

~~(2) Baghouse U exhaust stack (Stack U)~~

~~and make such records available upon request to IDEM, OAQ.~~

(a) To document compliance with Condition D.11.4 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse U stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(b) To document compliance with Condition D.11.5 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings of Baghouse U, and make such records available upon request to IDEM, OAQ.~~

(b) To document compliance with Condition D.11.5– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse U. 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.12.13 Record Keeping Requirements

....

~~(c) To document compliance with Condition D.12.8 – Visible Emissions Notations, the Permittee shall maintain records of the daily visible emission notations of the:~~

~~(1) Northeast (NE) Sand Silo's integrated bin vent stack exhaust,~~

~~(2) Baghouse Q exhaust stack (Stack V),~~

~~(3) Acid Scrubber AF exhaust stack (Stack AF)~~

~~and make such records available upon request to IDEM, OAQ.~~

(c) To document compliance with Condition D.12.8 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse Q and acid scrubber AF stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

~~(d) To document compliance with Condition D.12.9 – Scrubber Parametric Monitoring, the Permittee shall maintain records of the daily pH, pressure drop and flow rate readings of Acid Scrubber AF, and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.12.9– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the acid scrubber AF. The Permittee shall include in its daily record when the pH, pressure drop and flow rate reading are not taken and the reason for the lack of pH, pressure drop and flow rate readings, (e.g. the process did not operate that day).

~~(e) To document compliance with Condition D.12.11 – Baghouse Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings across Baghouse V, and make such records available upon request to IDEM, OAQ.~~

(e) To document compliance with Condition D.12.11– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse Q. 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 6 The Company requested that IDEM should change the 93 gallon per twelve (12) consecutive month period to 1150 gallon per twelve (12) consecutive month period. IDEM reviewed the calculation and determined that 1150 gallon is sufficient to meet the BACT limit of 0.105 lb/ton sand. Therefore, Condition D.9.1 and the Part 70 Quarterly Report Form have been revised.

D.9.1 VOC PSD ~~and~~ BACT Requirements [326 IAC 2-2] [326 IAC 8-1-6]

....

(6) The VOC content of the core release agent shall be limited to less than 6.15 pounds per gallon. The amount of annual usage of core release agent shall not exceed ~~93 gallons~~ **1150 gallon** per twelve (12) consecutive month period with compliance determined at the end of each month. These usage limits are required to limit the potential to emit of VOC to less than 0.105 pounds per ton of sand.

....

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION

Part 70 Quarterly Report

....

Facilities:	Phenolic Urethane Core Making Lines #1 through #5, and #8
Parameters:	Amount of Core Release Agent Used
Limits:	~~93 gallons pounds~~ **1150 gallon** per twelve (12) consecutive month period, rolled on a monthly basis, and VOC content of the core release agent shall not exceed 6.15 pounds per gallon. Compliance determined at the end of each month. (Section D.9)

Change 7 National Emissions Standard for Hazardous Air pollutants (NESHAP) Requirements, 40 CFR Part 63, Subpart EEEEE has been deleted from the permit. The revised 40 CFR Part 63, Subpart EEEEE has been added to the permit as an attachment A.

~~**§63.7680 What is the purpose of this subpart?**~~

~~This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for iron and steel foundries.~~

~~This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.~~

~~**§63.7681 Am I subject to this subpart?**~~

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

~~Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.~~

~~§63.7682 What parts of my foundry does this subpart cover?~~

~~(a) The affected source is each new or existing iron and steel foundry.~~

~~(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines.~~

~~This subpart also covers fugitive emissions from foundry operations.~~

~~(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.~~

~~§63.7683 When do I have to comply with this subpart?~~

~~(a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 23, 2007.~~

~~Major source status for existing affected sources must be determined no later than April 23, 2007.~~

~~(b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.~~

~~(f) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.~~

~~Emissions Limitations~~

~~§63.7690 What emissions limitations must I meet?~~

~~(a) You must meet each emissions limit or standard in paragraphs (a)(1) through (11) of this section that applies to you.~~

~~(2) For each cupola metal melting furnace at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(2)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(2)(ii) of this section:~~

~~(i) 0.006 gr/dscf of PM, or~~

~~(ii) 0.0005 gr/dscf of total metal HAP.~~

~~(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:~~

~~(i) 0.010 gr/dscf of PM, or~~

~~(ii) 0.0008 gr/dscf of total metal HAP.~~

~~(7) For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.~~

~~(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, you must not discharge emissions of volatile organic hazardous air pollutants (VOHAP) through a conveyance to the atmosphere that exceed 20 parts per million by volume (ppmv) corrected to 10 percent oxygen.~~

~~(b) You must meet each operating limit in paragraphs (b)(1) through (5) of this section that applies to you.~~

~~(1) You must install, operate, and maintain a capture and collection system for all emissions sources subject to an emissions limit or standard for VOHAP or TEA in paragraphs (a)(8) through (11) of this section.~~

~~(i) Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.~~

~~(ii) You must operate each capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan.~~

~~(2) You must operate each wet scrubber applied to emissions from a metal melting furnace, scrap preheater, pouring area, or pouring station subject to an emissions limit for PM or total metal HAP in paragraphs (a)(1) through (6) of this section such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test.~~

~~(3) You must operate each combustion device applied to emissions from a cupola metal melting furnace subject to the emissions limit for VOHAP in paragraph (a)(8) of this section, such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average.~~

~~Work Practice Standards~~

~~§63.7700 What work practice standards must I meet?~~

~~(a) For each segregated scrap storage area, bin or pile, you must either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section.~~

~~You may have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.~~

~~(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses 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, mercury switches, plastics, or free organic liquids.~~

~~For the purpose of this paragraph (b), “free organic liquids” is defined as material that fails the paint filter test by EPA Method 9095A, “Paint Filter Liquids Test” (Revision 1, December 1996), as published in EPA Publication SW–846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (incorporated by reference – see §63.14).~~

~~Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, plastics, or free organic liquids can be included in this certification.~~

~~(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry.~~

~~This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties.~~

~~You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.~~

~~(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.~~

~~(ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of plastic, and a program to ensure the scrap materials are drained of free liquids.~~

~~(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights.~~

~~You must obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.~~

~~(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.~~

~~(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment.~~

~~Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.~~

~~(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.~~

~~(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.~~

~~(iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.~~

~~(d) For each furan warm box mold or core making line in a new or existing iron and steel foundry, you must use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet.~~

~~This requirement does not apply to the resin portion of the binder system.~~

~~Operation and Maintenance Requirements~~

~~§63.7710 What are my operation and maintenance requirements?~~

~~(a) As required by §63.6(e)(1)(i), you must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.~~

~~(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to an emissions limit in §63.7690(a).~~

~~Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system.~~

~~This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.~~

~~(1) 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).~~

~~The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.~~

~~(2) Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11).~~

~~You must establish the operating according to the requirements in paragraphs (b)(2)(i) through (iii) of this section.~~

~~(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system.~~

~~At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations.~~

~~Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.~~

~~Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting.~~

~~(ii) For each operating limit parameter selected in paragraph (b)(2)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation.~~

~~If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (i.e., the operating limits with one furnace melting, two melting, as applicable to your plant).~~

~~(iii) Include documentation in your plan to support your selection of the operating limits established for your capture system.~~

~~This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations.~~

~~(3) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.~~

~~(4) A site-specific monitoring plan for each bag leak detection system.~~

~~For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015).~~

~~This baghouse monitoring plan is subject to approval by the Administrator.~~

~~The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times.~~

~~The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) 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) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.~~

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

~~(5) Corrective action plan for each baghouse.~~

~~The plan must include the requirement that, in the event 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 the corrective action as soon as practicable.~~

~~Corrective actions taken may include, but are not limited to:~~

~~(i) Inspecting the baghouse 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 compartment.~~

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

~~(vi) Making process changes.~~

~~(vii) Shutting down the process producing the PM emissions.~~

~~(6) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues.~~

~~You must document and maintain records of this determination.~~

~~The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials.~~

~~The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited.~~

~~For the purpose of this determination:~~

~~(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and~~

~~(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.~~

~~General Compliance Requirements~~

~~§63.7720 What are my general requirements for complying with this subpart?~~

~~(a) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, or malfunction.~~

~~(b) During the period between the compliance date specified for your iron and steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.~~

~~(c) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).~~

~~The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.~~

~~Initial Compliance Requirements~~

~~§63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?~~

~~(a) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after the compliance date that is specified in §63.7683 for your iron and steel foundry to demonstrate initial compliance with each emissions limitation in §63.7690 that applies to you.~~

~~(b) For each work practice standard in §63.7700 and each operation and maintenance requirement in §63.7710 that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than 30 calendar days after the compliance date that is specified for your iron and steel foundry in §63.7683.~~

~~(c) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, you must demonstrate initial compliance with either the proposed emissions limit or the promulgated emissions limit no later than October 19, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).~~

~~(d) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, and you chose to comply with the proposed emissions limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emissions limit by October 19, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).~~

~~**§63.7731 When must I conduct subsequent performance tests?**~~

~~(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emissions limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years.~~

~~The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.~~

~~(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.~~

~~**§63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?**~~

~~(a) You must conduct each performance test that applies to your iron and steel foundry according to the requirements in §63.7(e)(1) and the conditions specified in paragraphs (b) through (h) of this section.~~

~~(b) To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (5) of this section.~~

~~(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.~~

~~(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct.~~

~~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.~~

~~(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.~~

~~(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.~~

~~(iv) Method 4 to determine the moisture content of the stack gas.~~

~~(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.~~

~~(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.~~

~~(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.~~

~~(c) To determine compliance with the applicable emissions limit for total metal HAP in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (5) of this section.~~

~~(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.~~

~~(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct.~~

~~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.~~

~~(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.~~

~~(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.~~

~~(iv) Method 4 to determine the moisture content of the stack gas.~~

~~(v) Method 29 to determine the total metal HAP concentration.~~

~~(2) Collect a minimum sample volume of 60 dscf of gas during each total metal HAP sampling run.~~

~~A minimum of three valid test runs are needed to comprise a performance test.~~

~~(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.~~

~~(d) To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.~~

~~(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and §63.6(h)(5).~~

~~(2) Conduct each test such that the opacity observations overlap with the PM performance tests.~~

~~(e) To determine compliance with the applicable VOHAP emissions limit in §63.7690(a)(8) for a cupola metal melting furnace or in §63.7690(a)(9) for a scrap preheater, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.~~

~~(1) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.~~

~~(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct.~~

~~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.~~

~~(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.~~

~~(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.~~

~~(iv) Method 4 to determine the moisture content of the stack gas.~~

~~(v) Method 18 to determine the VOHAP concentration.~~

~~Alternatively, you may use Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO) or Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas.~~

~~(2) Determine the average VOHAP, TGNMO, or TOC concentration using a minimum of three valid test runs.~~

~~Each test run must include a minimum of 60 continuous operating minutes.~~

~~(3) For a cupola metal melting furnace, correct the measured concentration of VOHAP, TGNMO, or TOC for oxygen content in the gas stream using Equation 1 of this section:~~

$$\cancel{c_{VOHAP,10\%O_2} = c_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right)} \qquad \text{(Eq. 1)}$$

~~Where:~~

~~C_{VOHAP} = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A; and~~

~~$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis).~~

~~(4) For a cupola metal melting furnace, measure the combustion zone temperature of the combustion device with the CPMS required in §63.7740(d) during each sampling run in 15-minute intervals. Determine and record the 15-minute average of the three runs.~~

~~(f) Follow the applicable procedures in paragraphs (f)(1) through (3) of this section to determine compliance with the VOHAP emissions limit in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines.~~

~~(1) Follow these procedures to demonstrate compliance by direct measurement of total hydrocarbons (a surrogate for VOHAP) using a volatile organic compound (VOC) CEMS.~~

~~(i) Using the VOC CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) for 180 continuous operating minutes. You must measure emissions 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.~~

~~(ii) Reduce the monitoring data to hourly averages as specified in §63.8(g)(2).~~

~~(iii) Compute and record the 3-hour average of the monitoring data.~~

~~(2) As an alternative to the procedures in paragraph (f)(1) of this section, you may demonstrate compliance with the VOHAP emissions limit in §63.7690(a)(10) by establishing a site-specific TOC emissions limit that is correlated to the VOHAP emissions limit according to the procedures in paragraph (f)(2)(i) through (ix) of this section.~~

~~(i) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraph (f)(2)(ii) through (vi) of this section.~~

~~(ii) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct.~~

~~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.~~

~~(iii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.~~

~~(iv) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.~~

~~(v) Method 4 to determine the moisture content of the stack gas.~~

~~(vi) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of TGNMO using hexane as the calibration gas.~~

~~(vii) Using the CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) during each of the Method 18 (or Method 25) sampling runs.~~

~~You must measure emissions 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.~~

~~(viii) Calculate the average VOHAP (or TGNMO) concentration for the source test as the arithmetic average of the concentrations measured for the individual test runs, and determine the average concentration of total hydrocarbon (as hexane) as measured by the CEMS during all test runs.~~

~~(ix) Calculate the site-specific VOC emissions limit using Equation 2 of this section:~~

$$\cancel{VOC_{\lim it} = 20 \times \frac{C_{VOHAP,avg}}{C_{CEM}} \quad \text{(Eq. 2)}}$$

~~Where:~~

~~$C_{VOHAP,avg}$ = Average concentration of VOHAP for the source test in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the average concentration of TGNMO for the source test in ppmv as hexane as measured by Method 25 in 40 CFR part 60, appendix A; and~~

~~C_{CEM} = Average concentration of total hydrocarbons in ppmv as hexane as measured using the CEMS during the source test.~~

~~(3) For two or more exhaust streams from one or more automated conveyor and pallet cooling lines or automated shakeout lines, compute the flow-weighted average concentration of VOHAP emissions for each combination of exhaust streams using Equation 3 of this section:~~

$$\cancel{C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \quad \text{(Eq. 3)}}$$

~~Where:~~

~~C_w = Flow-weighted concentration of VOHAP or VOC, ppmv (as hexane);~~

~~C_i = Concentration of VOHAP or VOC from exhaust stream “i”, ppmv (as hexane);~~

~~n = Number of exhaust streams sampled; and~~

~~Q_i = Volumetric flow rate of effluent gas from exhaust stream “i,” in dry standard cubic feet per minute (dscfm).~~

~~(h) To determine compliance with the PM or total metal HAP emissions limits in §63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.~~

~~(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.~~

~~(2) Use the procedures in paragraphs (h)(2)(i) through (iii) of this section.~~

~~(i) Determine the volumetric flow rate of the individual regulated streams for which emissions limits apply.~~

~~(ii) Calculate the flow-weighted average emissions limit, considering only the regulated streams, using Equation 3 of this section, except Cw is the flow-weighted average emissions limit for PM or total metal HAP in the exhaust stream, gr/dscf; and Ci is the concentration of PM or total metal HAP in exhaust stream "i", gr/dscf.~~

~~(iii) Meet the calculated flow-weighted average emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.~~

~~(3) Use the procedures in paragraphs (h)(3)(i) through (iii) of this section.~~

~~(i) Determine the PM or total metal HAP concentration of each of the regulated streams prior to the combination with other exhaust streams or control device.~~

~~(ii) 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 4 of this section, except Ei is the mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr and Eo is the mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr~~

~~(iii) Meet the applicable emissions limit based on the calculated PM or total metal HAP concentration for the regulated emissions source using Equation 5 of this section:~~

$$\cancel{C_{released} = C_i - \left(1 - \frac{\%reduction}{100}\right)} \quad \text{~~(Eq. 5)~~}$$

~~Where:~~

~~$C_{released}$ = Calculated concentration of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, in gr/dscf; and~~

~~C_i = Concentration of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, in gr/dscf.~~

~~§63.7733 What procedures must I use to establish operating limits?~~

~~(a) For each capture system subject to operating limits in §63.7690(b)(1)(ii), you must establish site-specific operating limits in your operation and maintenance plan according to the procedures in paragraphs (a)(1) through (3) of this section.~~

~~(1) Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).~~

~~(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.~~

~~(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.~~

~~(b) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in paragraphs (b)(1) and (2) of this section.~~

~~(1) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run.~~

~~(2) Compute and record the 3-hour average pressure drop and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met.~~

~~(e) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in paragraphs (e)(1) through (3) of this section.~~

~~(1) Submit a written notification to the Administrator of your request 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 §63.7690.~~

~~(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (d) of this section.~~

~~(f) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of this subpart.~~

~~§63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?~~

~~(a) You have demonstrated initial compliance with the emissions limits in §63.7690(a) if:~~

~~(2) For each cupola metal melting furnace at an existing iron and steel foundry,~~

~~(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.006 gr/dscf; or~~

~~(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0005 gr/dscf.~~

~~(5) For each pouring station at an existing iron and steel foundry,~~

~~(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.010 gr/dscf; or~~

~~(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0008 gr/dscf.~~

~~(7) For each building or structure housing any emissions source at the iron and steel foundry, the opacity of fugitive emissions discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not exceed 20 percent (6-minute average), except for one 6-minute average per hour that did not exceed 27 percent opacity.~~

~~(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, the average VOHAP concentration, determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv corrected to 10 percent oxygen.~~

~~(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new foundry,~~

~~(i) You have reduced the data from the CEMS to 3-hour averages according to the performance test procedures in §63.7732(f)(1) or (2); and~~

~~(ii) The 3-hour flow-weighted average VOHAP concentration, measured according to the performance test procedures in §63.7332(f)(1) or (2), did not exceed 20 ppmv.~~

~~(b) You have demonstrated initial compliance with the operating limits in §63.7690(b) if:~~

~~(1) For each capture system subject to the operating limit in §63.7690(b)(1)(ii),~~

~~(i) You have established appropriate site-specific operating limits in your operation and maintenance plan according to the requirements in §63.7710(b); and~~

~~(ii) You have a record of the operating parameter data measured during the performance test in accordance with §63.7733(a); and~~

~~(2) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b).~~

~~(3) For each combustion device subject to the operating limit in §63.7690(b)(3) for combustion zone temperature, you have a record of the combustion zone temperature measured during the performance test in accordance with §63.7732(e)(4).~~

~~(4) For each combustion device subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you have established appropriate site-specific operating limits and have a record of the combustion zone temperature measured during the performance test in accordance with §63.7733(c).~~

~~(5) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5) for scrubbing liquid flow rate and scrubber blowdown pH,~~

~~(i) You have established appropriate site-specific operating limits for the scrubbing liquid flow rate and have a record of the scrubbing liquid flow rate measured during the performance test in accordance with §63.7733(d); and~~

~~(ii) You have a record of the pH of the scrubbing liquid blowdown measured during the performance test in accordance with §63.7732(g)(3).~~

~~§63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?~~

~~(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:~~

~~“At all times, your foundry will purchase and use 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, mercury switches, plastics, or free organic liquids.”~~

~~(b) For each iron and steel foundry subject to the requirements in §63.7700(c) for a scrap inspection and selection plan, you have demonstrated initial compliance if you have certified in your notification of compliance status that:~~

~~(1) You have submitted a written plan to the Administrator for approval according to the requirements in §63.7700(c); and~~

~~(2) You will operate at all times according to the plan requirements.~~

~~(c) For each furan warm box mold or core making line in a new or existing foundry subject to the work practice standard in §63.7700(d), you have demonstrated initial compliance if you have certified in your notification of compliance status that:~~

~~(1) You will meet the no methanol requirement for the catalyst portion of each binder chemical formulation; and~~

~~(2) You have records documenting your certification of compliance, such as a material safety data sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet, onsite and available for inspection.~~

~~§63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?~~

~~(a) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in paragraphs (a)(1) and (2) of this section.~~

~~(1) You have certified in your notification of compliance status that:~~

~~(i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and~~

~~(ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan.~~

~~(2) You have certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan.~~

~~(b) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:~~

~~(1) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and~~

~~(2) You will inspect, operate, and maintain each control device according to the procedures in the plan.~~

~~(c) For each bag leak detection system, you have demonstrated initial compliance if you have certified in your notification of compliance status that:~~

~~(1) You have submitted the bag leak detection system monitoring plan to the Administrator for approval according to the requirements of §63.7710(b);~~

~~(2) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and~~

~~(3) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan.~~

~~(d) For each pouring area and pouring station in a new or existing foundry, you have demonstrated initial compliance if you have certified in your notification of compliance status report that:~~

~~(1) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and~~

~~(2) You will follow the procedures for igniting mold vent gases according to the requirements in the plan.~~

~~Continuous Compliance Requirements~~

~~§63.7740 What are my monitoring requirements?~~

~~(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) and the requirements in paragraphs (a)(1) and (2) of this section.~~

~~(1) If you use a flow measurement device to monitor the operating limit parameter, you must at all times monitor the hourly average rate (e.g., the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device).~~

~~(2) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS.~~

~~If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.~~

~~(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in §63.7741(b) and conduct inspections at their specified frequencies according to the requirements specified in paragraphs (b)(1) through (8) of this section.~~

~~(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.~~

~~(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.~~

~~(3) Check the compressed air supply for pulse-jet baghouses each day.~~

~~(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.~~

~~(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.~~

~~(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.~~

~~(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.~~

~~(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.~~

~~(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c).~~

~~(d) For each combustion device subject to the operating limit in §63.7690(b)(3), you must at all times monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).~~

~~(e) For each combustion device subject to the operating limit in §63.7690(b)(4), you must at all times monitor the 3-hour average combustion zone temperature using CPMS according to the requirements in §63.7741(d).~~

~~(f) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5),~~

~~(1) You must at all times monitor the 3-hour average scrubbing liquid flow rate using CPMS according to the requirements of §63.7741(e)(1); and~~

~~(2) You must at all times monitor the 3-hour average pH of the scrubber blowdown using CPMS according to the requirements in §63.7741(e)(2) or measure and record the pH of the scrubber blowdown once per production cycle using a pH probe and meter according to the requirements in §63.7741(e)(3).~~

~~§63.7741 What are the installation, operation, and maintenance requirements for my monitors?~~

~~(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) through (3) of this section.~~

~~(1) If you use a flow measurement device to monitor an operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(1)(i) through (iv) of this section.~~

~~(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.~~

~~(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.~~

~~(iii) Conduct a flow sensor calibration check at least semiannually.~~

~~(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.~~

~~(2) If you use a pressure measurement device to monitor the operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(2)(i) through (vi) of this section.~~

~~(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.~~

~~(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.~~

~~(iii) Check the pressure tap for pluggage daily.~~

~~(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.~~

~~(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified nominal operating pressure range, or install a new pressure sensor.~~

~~(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.~~

~~(3) Record the results of each inspection, calibration, and validation check.~~

~~(b) You must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.~~

~~(1) 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 (0.0044 grains per actual cubic foot) or less.~~

~~(2) 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 electronic or other means (e.g., using a strip chart recorder or a data logger).~~

~~(3) 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.~~

~~(4) 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 and the alarm delay time (if applicable).~~

~~(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator.~~

~~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 operation and maintenance plan required by §63.7710(b).~~

~~(6) For negative pressure, 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.~~

~~(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.~~

~~(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in paragraphs (c)(1) and (2) of this section.~~

~~(1) For each CPMS for pressure drop you must:~~

~~(i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.~~

~~(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.~~

~~(iii) Check the pressure tap for pluggage daily.~~

~~(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.~~

~~(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified nominal operating pressure range, or install a new pressure sensor.~~

~~(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.~~

~~(2) For each CPMS for scrubber liquid flow rate, you must:~~

~~(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.~~

~~(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.~~

~~(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.~~

~~(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.~~

~~(d) For each combustion device subject to the operating limit in §63.7690(b)(3) or (4), you must install and maintain a CPMS to measure and record the combustion zone temperature according to the requirements in paragraphs (d)(1) through (8) of this section.~~

~~(1) Locate the temperature sensor in a position that provides a representative temperature.~~

~~(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.~~

~~(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 2 percent of the temperature value, whichever is larger.~~

~~(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.~~

~~(5) If you use a chart recorder, it must have a sensitivity in the minor division of at least 20 °F.~~

~~(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual.~~

~~Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading.~~

~~(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified nominal operating temperature range, or install a new temperature sensor.~~

~~(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.~~

~~(e) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5), you must:~~

~~(1) Install and maintain CPMS to measure and record the scrubbing liquid flow rate according to the requirements in paragraph (c)(2) of this section; and~~

~~(2) Install and maintain CPMS to measure and record the pH of the scrubber blowdown according to the requirements in paragraph (e)(2)(i) through (iv) of this section.~~

~~(i) Locate the pH sensor in a position that provides a representative measurement of the pH and that minimizes or eliminates internal and external corrosion.~~

~~(ii) Use a gauge with a minimum measurement sensitivity of 0.1 pH or a transducer with a minimum measurement sensitivity of 5 percent of the pH range.~~

~~(iii) Check gauge calibration quarterly and transducer calibration monthly using a manual pH gauge.~~

~~(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.~~

~~(3) As an alternative to the CPMS required in paragraph (e)(2) of this section, you may use a pH probe to extract a sample for analysis by a pH meter that meets the requirements in paragraphs (e)(3)(i) through (iii) of this section.~~

~~(i) The pH meter must have a range of at least 1 to 5 or more;~~

~~(ii) The pH meter must have a accuracy of ±0.1; and~~

~~(iii) The pH meter must have a resolution of at least 0.1 pH.~~

~~(f) You must operate each CPMS used to meet the requirements of this subpart according to the requirements specified in paragraphs (f)(1) through (3) of this section.~~

~~(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data.~~

~~(2) Each CPMS must have valid hourly data for 100 percent of every averaging period.~~

~~(3) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.~~

~~(g) For each automated conveyor and pallet cooling line and automated shakeout line at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must install, operate, and maintain a CEMS to measure and record the concentration of VOHAP emissions according to the requirements in paragraphs (g)(1) through (3) of this section.~~

~~(1) You must install, operate, and maintain each CEMS according to Performance Specification 8 in 40 CFR part 60, appendix B.~~

~~(2) You must conduct a performance evaluation of each CEMS according to the requirements of §63.8 and Performance Specification 8 in 40 CFR part 60, appendix B.~~

~~(3) You must operate each CEMS according to the requirements specified in paragraph (g)(3)(i) through (iv) of this section.~~

~~(i) 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.~~

~~(ii) You must reduce CEMS data as specified in §63.8(g)(2).~~

~~(iii) Each CEMS must determine and record the 3-hour average emissions using all the hourly averages collected for periods during which the CEMS is not out-of-control.~~

~~(iv) Record the results of each inspection, calibration, and validation check.~~

~~§63.7742 How do I monitor and collect data to demonstrate continuous compliance?~~

~~(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.~~

~~(b) 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 emissions or operating levels or to fulfill a minimum data availability requirement, if applicable.~~

~~You must use all the data collected during all other periods in assessing compliance.~~

~~(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data.~~

~~Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.~~

~~§63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?~~

~~(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section:~~

~~(2) For each cupola metal melting furnace at an existing iron and steel foundry,~~

~~(i) Maintaining the average PM concentration in the exhaust stream at or below 0.006 gr/dscf; or~~

~~(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0005 gr/dscf.~~

~~(5) For each pouring station at an existing iron and steel foundry,~~

~~(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or~~

~~(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.~~

~~(7) For each building or structure housing any emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.~~

~~(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv corrected to 10 percent oxygen.~~

~~(10) For one or more automated conveyor and pallet cooling lines or automated shakeout lines that use a sand mold system at a new iron and steel foundry,~~

~~(i) Maintaining the 3-hour flow-weighted average VOHAP concentration in the exhaust stream at or below 20 ppmv;~~

~~(ii) Inspecting and maintaining each CEMS according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements; and~~

~~(iii) Collecting and reducing monitoring data for according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements.~~

~~(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in §63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7).~~

~~(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7690(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.~~

~~(1) Operating the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and~~

~~(2) Monitoring the capture system according to the requirements in §63.7740(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements in this subpart.~~

~~(c) For each baghouse equipped with a bag leak detection system,~~

~~(1) Maintaining records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed; and~~

~~(2) Inspecting and maintaining each baghouse according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.~~

~~(d) For each wet scrubber that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by:~~

~~(1) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;~~

~~(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and~~

~~(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.~~

~~(e) For each combustion device that is subject to the operating limit in §63.7690(b)(3), you must demonstrate continuous compliance by:~~

~~(1) Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300 °F;~~

~~(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and~~

~~(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.~~

~~(f) For each combustion device that is subject to the operating limit in §63.7690(b)(4), you must demonstrate continuous compliance by:~~

~~(1) Maintaining the 3-hour average combustion zone temperature at a level no lower that established during the initial or subsequent performance test;~~

~~(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and~~

~~(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.~~

~~(g) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5), you must demonstrate continuous compliance by:~~

~~(1) Maintaining the 3-hour average scrubbing liquid flow rate at a level no lower than the level established during the initial or subsequent performance test;~~

~~(2) Maintaining the 3-hour average pH of the scrubber blowdown at a level no higher than 4.5 (if measured by a CPMS) or maintaining the pH level of the scrubber blowdown during each production shift no higher than 4.5;~~

~~(3) Inspecting and maintaining each CPMS according to the requirements of §63.7741(e) and recording all information needed to document conformance with these requirements; and~~

~~(4) Collecting and reducing monitoring data for scrubbing liquid flow rate and scrubber blowdown pH according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. If the pH level of the scrubber blowdown is measured by a probe and meter, you must demonstrate continuous compliance by maintaining records that document the date, time, and results of each sample taken for each production shift.~~

~~§63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?~~

~~(a) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.~~

~~(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d).~~

~~(d) For a scrap preheater at a new iron and steel foundry, you must keep records to document that each scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) to demonstrate continuous compliance with the requirement in §63.7700(f).~~

~~§63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?~~

~~(a) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by:~~

~~(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements;~~

~~(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements;~~

~~(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;~~

~~(4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and~~

~~(5) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)~~

~~(b) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request.~~

~~You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.~~

~~§63.7746 What other requirements must I meet to demonstrate continuous compliance?~~

~~(a) *Deviations*. You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you.~~

~~This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies to you.~~

~~These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.~~

~~These deviations must be reported according to the requirements of §63.7751.~~

~~(b) *Startups, shutdowns, and malfunctions*. During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan.~~

~~(1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.~~

~~(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).~~

~~§63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?~~

~~(a) You may request an alternative monitoring method to demonstrate compliance with the VOHAP emissions limits in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines at a new iron and steel foundry according to the procedures in this section.~~

~~(b) You can request approval to use an alternative monitoring method in the notification of construction or reconstruction for new sources, or at any time.~~

~~(c) You must submit a monitoring plan that includes a description of the control technique or pollution prevention technique, a description of the continuous monitoring system or method including appropriate operating parameters that will be monitored, test results demonstrating compliance with the emissions limit, operating limit(s) (if applicable) determined according to the test results, and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the monitors.~~

~~(d) The monitoring plan is subject to approval by the Administrator. Use of the alternative monitoring method must not begin until approval is granted by the Administrator.~~

~~Notifications, Reports, and Records~~

~~§63.7750 What notifications must I submit and when?~~

~~(a) You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.~~

~~(b) As specified in §63.9(b)(2), if you start up your iron and steel foundry before April 22, 2004, you must submit your initial notification no later than August 20, 2004.~~

~~(c) If you start up your new iron and steel foundry on or after April 22, 2004, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.~~

~~(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1).~~

~~(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii).~~

~~(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.~~

~~(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in §63.10(d)(2).~~

~~§63.7751 What reports must I submit and when?~~

~~(a) Compliance report due dates.~~

~~Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.~~

~~(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by §63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.~~

~~(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.~~

~~(3) 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) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.~~

~~(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 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 the dates specified in paragraphs (a)(1) through (4) of this section.~~

~~(b) Compliance report contents.~~

~~Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.~~

~~(1) Company name and address.~~

~~(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.~~

~~(3) Date of report and beginning and ending dates of the reporting period.~~

~~(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).~~

~~(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.~~

~~(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.~~

~~(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.~~

~~(i) The total operating time of each emissions source during the reporting period.~~

~~(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.~~

~~(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.~~

~~(i) The date and time that each malfunction started and stopped.~~

~~(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.~~

~~(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).~~

~~(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.~~

~~(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.~~

~~(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.~~

~~(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.~~

~~(viii) A brief description of the process units.~~

~~(ix) A brief description of the continuous monitoring system.~~

~~(x) The date of the latest continuous monitoring system certification or audit.~~

~~(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.~~

~~(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).~~

~~(d) Part 70 monitoring report. If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you 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 you submit a compliance report for an iron and steel foundry 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 the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report.~~

~~However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.~~

~~§63.7752 What records must I keep?~~

~~(a) You must keep the records specified in paragraphs (a)(1) through (4) 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 requirements of §63.10(b)(2)(xiv).~~

~~(2) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.~~

~~(3) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii).~~

~~(4) Records of the annual quantity of each chemical binder or coating material used to make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used at the foundry.~~

~~(c) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.~~

~~§63.7753 In what form and for how long must I keep my records?~~

~~(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §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 onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite.~~

~~Other Requirements and Information~~

~~§63.7760 What parts of the General Provisions apply to me?~~

~~Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.~~

~~§63.7761 Who implements and enforces this subpart?~~

~~(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (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, in addition to 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 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 Administrator of the U.S. EPA 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 (4) of this section.~~

~~(1) Approval of alternatives to non-opacity emissions limitations in §63.7690 and work practice standards in §63.7700 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.~~

~~Definitions~~

~~§63.7765 What definitions apply to this subpart?~~

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

~~*Automated conveyor and pallet cooling line* means any dedicated conveyor line or area used for cooling molds received from pouring stations.~~

~~*Automated shakeout line* means any mechanical process unit designed for and dedicated to separating a casting from a mold. These mechanical processes include, but are not limited to, shaker decks, rotary separators, and high-frequency vibration units. Automated shakeout lines do not include manual processes for separating a casting from a mold, such as personnel using a hammer, chisel, pick ax, sledge hammer, or jackhammer.~~

~~*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.~~

~~*Cold box mold or core making line* means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas.~~

~~*Combustion device* means an afterburner, thermal incinerator, or scrap preheater.~~

~~*Conveyance* means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance.~~

~~*Cooling* means the process of molten metal solidification within the mold and subsequent temperature reduction prior to shakeout.~~

~~*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), work practice standard, 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 work practice 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.~~

~~*Emissions limitation* means any emissions limit or operating limit.~~

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

~~*Free organic liquids* means material that fails the paint filter test by EPA Method 9095A (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.~~

~~*Fresh acid solution* means a sulfuric acid solution used for the control of triethylamine emissions that has a pH of 2.0 or less.~~

~~*Fugitive emissions* means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart.~~

~~*Furan 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 furan warm box system by the foundry industry.~~

~~*Hazardous air pollutant* means any substance on the list originally established in 112(b)(1) of the CAA and subsequently amended as published in the Code of Federal Regulations.~~

~~*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 and operations that only produce non-commercial castings are not included in this definition.~~

~~*Metal melting furnace* means a cupola, electric arc furnace, or electric induction furnace 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 green sand molds or cores.~~

~~*Mold vent* means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring.~~

~~*Pouring area* means an area, generally associated with floor and pit molding operations, in which molten metal is brought to each individual mold. Pouring areas include all pouring operations that do not meet the definition of a pouring station.~~

~~*Pouring station* means the fixed location to which molds are brought in a continuous or semicontinuous manner to receive molten metal, after which the molds are moved to a cooling area.~~

~~*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 moisture and other volatile impurities or tramp materials by direct flame heating or similar means of heating.~~

~~*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 before being returned to the scrubber.~~

~~*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.~~

~~Table 1 to Subpart EEEEE of Part 63 – Applicability of General Provisions to Subpart EEEEE~~

~~[As stated in §63.7760, you must meet each requirement in the following table that applies to you.]~~

~~Citation~~	~~Subject~~	~~Applies to Subpart EEEEE?~~	~~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)-(j)~~	~~Compliance extension and Presidential compliance exemption.~~	~~Yes~~	
~~63.7(a)(1)-(a)(2)~~	~~Applicability and performance test dates.~~	~~No~~	~~Subpart EEEEE specifies applicability and performance test dates.~~
~~63.7(a)(3), (b)-(h)~~	~~Performance testing requirements.~~	~~Yes~~	
~~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~~	~~Subpart EEEEE specifies requirements for alternative monitoring systems.~~
~~63.8(a)(4)~~	~~Additional monitoring requirements for control devices in §63.11.~~	~~No~~	~~Subpart EEEEE does not require flares.~~
~~63.8(c)(4)~~	~~Continuous monitoring system (CMS) requirements.~~	~~No~~	~~Subpart EEEEE specifies requirements for operation of CMS and CEMS.~~
~~63.8(c)(5)~~	~~Continuous opacity monitoring system (COMS) Minimum Procedures.~~	~~No~~	~~Subpart EEEEE does not require COMS.~~
~~63.8(g)(5)~~	~~Data reduction~~	~~No~~	~~Subpart EEEEE specifies data reduction requirements.~~

~~Table 1 to Subpart EEEEE of Part 63 – Applicability of General Provisions to Subpart EEEEE~~

~~[As stated in §63.7760, you must meet each requirement in the following table that applies to you.]~~

~~Citation~~	~~Subject~~	~~Applies to Subpart EEEEE?~~	~~Explanation~~
~~63.9~~	~~Notification requirements.~~	~~Yes~~	
~~63.10(a)-(b), (c)(1)-(6), (c)(9)-(15), (d)(1)-(2), (e)(1)-(2), (f).~~	~~Recordkeeping and reporting requirements.~~	~~Yes~~	~~Additional records for CMS in §63.10(c)(1)-(6), (9)-(15) apply only to CEMS.~~
~~63.10(c)(7)-(8)~~	~~Records of excess emissions and parameter monitoring exceedances for CMS.~~	~~No~~	~~Subpart EEEEE specifies records requirements.~~
~~63.10(d)(3)~~	~~Reporting opacity or visible emissions observations.~~	~~Yes~~	
~~63.10(e)(3)~~	~~Excess emissions reports.~~	~~No~~	~~Subpart EEEEE specifies Reporting requirements.~~
~~63.10(e)(4)~~	~~Reporting COMS data~~	~~No~~	~~Subpart EEEEE data does not require COMS.~~
~~63.11~~	~~Control device requirements.~~	~~No~~	~~Subpart EEEEE does not require flares.~~
~~63.12~~	~~State authority and delegations.~~	~~Yes~~	
~~63.13-63.15~~	~~Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality.~~	~~Yes~~	

~~§63.7700 What work practice standards must I meet?~~

~~(a) You must comply with the certification requirements in paragraph (b) of this section or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section.~~

~~(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids.~~

~~(c) * * * * *~~

~~(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section.~~

~~* * * * *~~

~~(3) * * * * *~~

~~(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.~~

~~(ii)~~ * * * * *

~~(iii)~~ * * * * *

~~(d)~~ * * * * *

* * * * *

~~§63.7720 What are my general requirements for complying with this subpart?~~

* * * * *

~~(c) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.~~

* * * * *

~~§63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?~~

~~(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that: ''At all times, your foundry will purchase and use only certified metal ingots, pig iron, slitter, or other materials that do not include postconsumer automotive body scrap, postconsumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids.''~~

* * * * *

~~§63.7746 What other requirements must I meet to demonstrate continuous compliance?~~

* * * * *

~~(b) Startups, shutdowns, and malfunctions. During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan.~~

~~(1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.~~

* * * * *

Change 8 The IDEM, OAQ mailing addresses now include a new mail code. The mail code for the Permits Branch and Compliance Branch is MC 61-53 IGCN 1003. The Asbestos Section is MC 61-52 IGCN 1003 and Technical Support and Modeling Section is MC 61-50 IGCN 1003. The addresses were updated throughout the permit.

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 085-25675-00003. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

Appendix A: Emissions Calculations
Emission Summary

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number: SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date: December 24, 2007

Uncontrolled Potential Emissions

	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							
Phenolic Urethane Core Making							
Phenolic Urethane Resin	0	0	0	57.24	0	0	0.064
Phenolic Urethane Catalyst	0	0	0	216.02	0	0	0
Core Box Cleaner	0	0	0	11.32		0	0
Release Agent	0	0	0	8.26	0	0	0
Core Wash	0	0	0	32.17	0	0	0
Phenolic Urethane Core Oven #9	0.02	0.1	0.01	0.1	0.9	1.1	0.02
Phenolic Urethane Core Oven #10	0.05	0.2	0.02	0.1	2.2	2.6	0.05
Total Emissions	0.07	0.3	0.03	325.2	3.1	3.7	0.134

Appendix A: Emissions Calculations
Emission Summary

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number: SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date: December 24, 2007

Limited Potential Emissions

	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							
Phenolic Urethane Core Making							
Phenolic Urethane Resin	0.00	0	0	4.28	0	0	0.064
Phenolic Urethane Catalyst	0.00	0	0	16.47	0	0	0
Core Box Cleaner	0.00	0	0	0.86	0	0	0
Release Agent	0.00	0	0	0.63	0	0	0
Core Wash	0.00	0	0	2.46	0	0	0
Phenolic Urethane Core Oven #9	0.02	0.1	0.01	0.1	0.9	1.1	0.02
Phenolic Urethane Core Oven #10	0.05	0.2	0.02	0.1	2.2	2.6	0.05
Total Emissions	0.07	0.30	0.03	24.90	3.10	3.70	0.134

Appendix A: Emissions Calculations
Emission Summary

Source Name: Dalton Corporation, Warsaw Manufacturing Facility
Source Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number: SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date: December 24, 2007

Controlled Potential Emissions For CAM Applicability

	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							
Phenolic Urethane Core Making							
Phenolic Urethane Resin	0	0	0	4.28	0	0	0.064
Phenolic Urethane Catalyst	0	0	0	16.47	0	0	0
Core Box Cleaner	0	0	0	0.86	0	0	0
Release Agent	0	0	0	0.63	0	0	0
Core Wash	0	0	0	2.46	0	0	0
Phenolic Urethane Core Oven #9	0.02	0.1	0.01	0.1	0.9	1.1	0.02
Phenolic Urethane Core Oven #10	0.05	0.2	0.02	0.1	2.2	2.6	0.05
Total Emissions	0.07	0.30	0.03	24.9	3.1	3.7	0.134

Appendix A: Emission Calculations
Phenolic Urethane Core Sand handling

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Plant Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date December 24, 2007

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)
Core Sand handling	18	PM	3.60	283.82	283.82
		PM-10	0.54	42.57	42.57
		SO2	0.00	0.00	0.00
		NOx	0.00	0.00	0.00
		VOC	0.00	0.00	0.00
		CO	0.00	0.00	0.00

Limited/controlled

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Limited (tons/yr)	Controlled (tons/yr)	Type of Control	Control Efficiency (%)
Core Sand handling	1.37	PM	3.60	21.60	1.94	Baghouse	91.00%
		PM-10	0.54	42.57	3.83		
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Methodology
Limited Emission Rate (tons/hr) is based on the annual through put for PM/PM10.
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-003-50

Appendix A: Emission Calculations
Phenolic Urethane Core Machine #31 #32 and #33

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Plant Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date December 24, 2007

Process	Rate (tons/hr)	Pollutant	Ef (lb/lb)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Phenolic Urethane Resin	0.2250	VOC	0.02904	57.24	57.24	none	none
Phenolic Urethane Catalyst	0.02466	VOC	1.0	216.02	216.02	none	none
Core Box Cleaner	0.001290	VOC	1.0	11.30	11.30	none	none
Release Agent	0.00105	VOC	0.9	8.28	8.28	none	none
Core Wash	0.18360	VOC	0.02	32.17	32.17	none	none
Total Emissions				**325.0**			

Methodology

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

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

Appendix A: Emission Calculations
Phenolic Urethane Core Making Operation HAP Emissions

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Plant Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date December 24, 2007

Limited HAPs Emissions

Process	Rate (tons/yr)	Pollutant	Weight % Emission Factor	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Part I Resin	81.8	Phenol	0.05	0.00	0.0000	None	None
		MDI	0.0000	0.00	0.0000		
		Formaldehyde	0.01	0.016	0.016		
		Naphthalene	0.01	0.027	0.027		
Part II Resin	66.3	Phenol	0.00	0.000	0.000		
		MDI	0.50	0.000	0.000		
		Formaldehyde	0.00	0.000	0.000		
		Naphthalene	0.01	0.022	0.022		
Total Emisions				**0.064**			

Note:
The following reduction factors for Phenolic Urethane core making were obtained from the American Foundarymen's Society Publication entitled "Form R Repoting of Binder Chemicals used in Foundries.

Pollutant	% Release of Part I resin	% Release of Part II resin
Phenol	0.00%	NA
MDI	NA	0.00%
Formaldehyde	2.0	NA
Naphthalene	3.25	3.25

Appendix A: Emission Calculations
Phenolic Urethane Core Making Operation VOC Emissions

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Plant Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date December 24, 2007

Limited VOC Emissions

Process	Rate (lb/yr)	Pollutant	Ef (lb/lb)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Phenolic Urethane Resin	295,000	VOC	0.02904	4.28	4.28	none	none
Phenolic Urethane Catalyst	32,935	VOC	1.0	16.47	16.47		
Core Box Cleaner	1,725	VOC	1.0	0.86	0.86		
Release Agent	1,397	VOC	0.9	0.63	0.63		
Core Wash	245,505	VOC	0.02	2.46	2.46		
Total VOC Emissions				**24.70**			

Methodology

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

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-003-60

Appendix A: Emission Calculations
Phenolic Urethane Core Making Operation HAP Emissions
Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Plant Location: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number SPM085-25675-00003
Permit Reviewer: Josiah Balogun
Date December 24, 2007

Limited HAPs Emissions

Process	Rate (tons/yr)	Pollutant	Weight % Emission Factor	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Part I Resin	81.8	Phenol	0.05	0.00	0.0000	None	None
		MDI	0.0000	0.00	0.0000		
		Formaldehyde	0.01	0.016	0.016		
		Naphthalene	0.01	0.027	0.027		
Part II Resin	66.3	Phenol	0.00	0.000	0.000		
		MDI	0.50	0.000	0.000		
		Formaldehyde	0.00	0.000	0.000		
		Naphthalene	0.01	0.022	0.022		
Total Emisions				**0.064**			

Note:
The following reduction factors for Phenolic Urethane core making were obtained from the American Foundarymen's Society Publication entitled "Form R Repoting of Binder Chemicals used in Foundries.

Pollutant	% Release of Part I resin	% Release of Part II resin
Phenol	0.00%	NA
MDI	NA	0.00%
Formaldehyde	2.0	NA
Naphthalene	3.25	3.25

Methodology

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

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-003-60

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Core Oven #9

Company Name: Valbruna Slater Stainless, Inc
Address City IN Zip: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: F003-23185-00011
Reviewer: Josiah Balogun
Date: 23-Apr-07

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.4	21.0

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.1	0.01	1.1	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 10 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Core Oven #9
HAPs Emissions

Company Name: Valbruna Slater Stainless, Inc
Address City IN Zip: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: F003-23185-00011
Reviewer: Josiah Balogun
Date: 23-Apr-07

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.208E-05	1.261E-05	7.884E-04	1.892E-02	3.574E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.256E-06	1.156E-05	1.472E-05	3.995E-06	2.208E-05

Methodology is the same as page 9.

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

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Core Oven #10

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Address City IN Zip: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number: SPM085-25675-00003
Reviewer: Josiah Balogun
Date: December 24, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
6.0	52.6

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.2	0.02	2.6	0.1	2.2

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 12 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Core Oven #10
HAPs Emissions

Company Name: Dalton Corporation, Warsaw Manufacturing Facility
Address City IN Zip: 1900 E. Jefferson Street, Warsaw, Indiana 46580
Permit Number: SPM085-25675-00003
Reviewer: Josiah Balogun
Date: December 24, 2007

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.519E-05	3.154E-05	1.971E-03	4.730E-02	8.935E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.314E-05	2.891E-05	3.679E-05	9.986E-06	5.519E-05

Methodology is the same as page 11.

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