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: July 30, 2008

RE: Dalton Corporation / 113-25804-00004

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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

Enclosures
FNTV-PMOD.doc 3/27/08

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
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Mr. Michael Schall
Dalton Corp., Kendallville Manufacturing Facility
200 West Ohio Street,
Kendallville, IN 46755

July 30, 2008

Re: 113-25804-00004
Significant Permit Modification to
Part 70 Renewal No.: T 113-6491-00004

Dear Schall:

Dalton Corp., Kendallville Manufacturing Facility was issued a Part 70 Operating Permit on July 5, 2006, for the manufacturing of gray iron foundry. A letter requesting changes to this permit was received on December 18, 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"

Matt Stuckey, Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

JB

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

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Prevention of Significant Deterioration and PART 70 Operating Permit
OFFICE OF AIR QUALITY

Dalton Corporation, Kendallville Manufacturing Facility
200 West Ohio Street
Kendallville, Indiana 46755

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. 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 (PSD) and 326 IAC 2-7-10.5, applicable to those conditions.

Part 70 Operating Permit No.: 113-6491-00004	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: July 5, 2006 Expiration Date: July 5, 2011

PSD/Significant Permit Modification No.: 113-25804-00004	
Issued by/Original Signed By: Matthew Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: July 30, 2008 Expiration Date: July 5, 2011

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Part 70 Operating Permit Certification
Part 70 Operating Permit Emergency Occurrence Report
Part 70 Operating Permit Quarterly Deviation and Compliance Monitoring Report
Part 70 Operating Permit Quarterly Report(s)

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)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
SIC Code:	3321
County Location:	Noble
Source Location 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 which is one of the 28 listed source categories pursuant to 326 IAC 2-2 (PSD)

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

(a) Cupola Charge Handling

One (1) Cupola Charge Handling operation, constructed in 1970 and modified in 1984, with a nominal throughput of 43.2 tons per hour of metal.

Emissions from the Cupola Charge Handling are uncontrolled.

SECTION D.2

(b) Cupola Melt Furnace

(1) One (1) Cupola Melt Furnace, constructed in 1970 and modified in 1984, with a nominal melt rate of 38.0 tons of metal per hour.

Emissions from the Cupola Melt Furnace are controlled by Wet Scrubber M, and two (2) natural gas-fired afterburners, and exhaust to Stack M.

Each afterburner is rated at a maximum heat input capacity of 5.0 million Btu per hour.

(2) One (1) natural gas-fired hot air blast preheater, with a maximum heat input rating of 18.0 million British thermal units (MMBtu) per hour, exhausting through one (1) stack (Stack 90).

SECTION D.3

(c) Herman Line

(1) One (1) Herman Pouring/Casting Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Pouring Line are uncontrolled, and exhaust through Vent #27 and Vent #28.

(2) One (1) Herman Cooling Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Cooling Line are uncontrolled, and exhaust through Vent #3 and Vent #71.

(3) One (1) Herman Shakeout Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Shakeout Line are controlled by Wet Scrubber C, and exhaust through Stack C.

SECTION D.3

(d) Osborn Line

(1) One (1) Osborn Pouring/Casting Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Pouring/Casting Line are uncontrolled, and exhaust to Vent #30 and Vent #31.

(2) One (1) Osborn Cooling Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Cooling Line are uncontrolled, and exhaust to Vent #4, Vent 5, Vent #21, and Vent #70.

(3) One (1) Osborn Shakeout Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Shakeout Line are controlled by Wet Scrubber B and Wet Scrubber C, and exhaust to Stack B and Stack C.

SECTION D.3

(e) Hotline Secondary Shakeout

One (1) casting shakeout line, referred to as the Hotline Secondary Shakeout, constructed in 1954, with a nominal throughput of 50.0 tons of metal per hour.

Emissions from the Hotline Secondary Shakeout are controlled by Wet Scrubber A and Wet Scrubber B, and exhaust to Stack A and Stack B.

SECTION D.3

(f) Sand Handling System

One (1) Sand Handling System, constructed in 1984, with a nominal throughput of 269.0 tons of sand per hour. The mold sand handling operations consist of raw material silos for sand and bond addition and in-process sand storage, a sand storage area, raw material sand and bond addition systems, sand transfer belt conveyors and elevators and a sand muller.

Emissions from the Sand Handling System are controlled by Wet Scrubbers A, B and C, and exhaust to Stacks A, B, and C, and by bin vent filters on the sand addition and bond silos.

SECTION D.4

(g) Sprue and Sand Transport System

One (1) Sprue and Sand Transport System, constructed in 1984, with a nominal throughput of 7.7 tons of metal per hour.

Emissions from the Sprue and Sand Transport System controlled by Baghouse P, and exhaust to Stack P.

SECTION D.5

(h) South Line

(1) Core Sand Handling

One (1) Core Sand Handling System, with a nominal throughput of 12.0 tons of sand per hour.

Emissions from the South Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer

One (1) mixer, identified as South Mixer #1, constructed in 1981, with nominal throughputs of 12.0 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the South Mixer #1 are uncontrolled, and exhaust to Vent #53.

(3) Core Machines

(a) One (1) Core Machine #30, constructed in 1981, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #31, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #32, constructed in 1979, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #33, constructed in 2000, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #40, approved for construction in 2006, with nominal throughputs of 3.5 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of South Line are controlled by Acid Scrubber T, and exhaust to Stack T.

SECTION D.5

(i) Center Line

(1) Core Sand Handling
One (1) Core Sand Handling System, with a nominal throughput of 4.2 tons of sand per hour.

Emissions from the Center Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer
One (1) mixer, identified as Center Mixer #2, constructed in 1979, with nominal throughputs of 4.2 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the Center Mixer #2 are uncontrolled, and exhaust to Vent #48.

(3) Core Machines

(a) One (1) Core Machine #10, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #11, constructed in 1996, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #12, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #13, constructed in 1983, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of Center Line are controlled by Acid Scrubber T, and exhaust to Stack T.

SECTION D.5

(j) North Line

(1) Core Sand Handling
One (1) Core Sand Handling System, with a nominal throughput of 5.1 tons of sand per hour.

Emissions from the North Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer
One (1) mixer, identified as North Mixer #3, constructed in 1964, with nominal throughputs of 5.1 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the North Mixer #3 are uncontrolled, and exhaust to Vent #50.

(3) Core Machines

(a) One (1) Core Machine #14, constructed in 1995, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #15, constructed in 1982, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #16, constructed in 2000, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #23, constructed in 1968, with nominal throughputs of 1.8 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #21, constructed in 1968 and approved for modification in 2006, with nominal throughputs of 3.5 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

SECTION D.5

(k) Core Wash
The Core Wash Dip Tanks are common to the South Line, Center Line, and North Line.

Emissions from these Core Wash Dip Tanks do not contain VOCs.

SECTION D.5

(l) Core Ovens

Three (3) natural gas-fired core ovens, identified as Core Ovens #1, #2 and #3, each core oven is with a nominal throughput of 2.0 MMBtu per hour.

Core Ovens #1 and #2 were constructed prior to 1977 and Core Oven #3 was constructed in 2000.

Emissions from these three (3) core ovens exhaust through Stack #75, Stack #76, and Stack #77.

These core ovens are common to the South Line, Center Line, and North Line.

SECTION D.6

(m) Six (6) Shot Blast Machines

(1) One (1) Wheelbrator shot blast machine, referred to as Tumble Blast #1, constructed in 1964, with a nominal throughput of 14.5 tons of metal castings per hour.

Emissions from Tumble Blast #1 are controlled by Baghouse O, and exhaust to Stack O.

(2) One (1) Wheelbrator shot blast machine, referred to as Tumble Blast #2, constructed in 1964, with a nominal throughput of 14.5 tons of metal castings per hour.

Emissions from Tumble Blast #2 are controlled by Baghouse O, and exhaust to Stack O.

(3) One (1) Pangborn shot blast machine, referred to as Tumble Blast #4, constructed in 1979, with a nominal throughput of 11.0 tons of metal castings per hour.

Emissions from Tumble Blast #4 are controlled by Baghouse E and exhaust to Stack E.

(4) One (1) Pangborn shot blast machine, referred to as Hanger Spinner Blast #5, constructed in 1980, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from the Hanger Spinner Blast #5 are controlled by Baghouse E, and exhaust to Stack E.

(5) One (1) Pangborn shot blast machine, referred to as Hanger Spinner Blast #6, constructed in 1983, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from the Hanger Spinner #6 are controlled by Baghouse H, and exhaust to Stack H.

(6) One (1) shot blast machine, referred to as Shot Blast #7, constructed in 1999, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from Shot Blast #7 are controlled by Baghouse I, and exhaust to Stack I.

Baghouse E is common to:
- - Tumble Blast #4,
- - Hanger Spinner Blast #5.

Baghouse I is common to:
- - Shot Blast #7, and
- - Grinders #25 to #30.

Baghouse O is common to:
- - Tumble Blast #1,
- - Tumble Blast #2, and
- - Grinders #21 to #24.

SECTION D.6

(n) Thirty (30) Grinders

(1) Thirteen (13) Setco grinders, referred to as Grinders #1 to #13, all constructed in 1980, each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from Grinders #1 to #13 are controlled by Baghouse F, and exhaust to Stack F.

(2) Seven (7) Setco grinders, referred to as Grinders #14 to #20, all constructed in 1980, each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from Grinders #14 to #20 are controlled by Baghouse G, and exhaust to Stack G.

(3) Four (4) Setco grinders, referred to as Grinders #21 to #24, all constructed in 1998, each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from the Grinders #21 to #24 are controlled by Baghouse O, and exhaust to Stack O.

(4) Six (6) Setco grinders, referred to as Grinders #25 to #30, each with a nominal throughput of 4.0 tons of metal castings per hour.

Grinders #25 and #26 were constructed in 2000 and Grinders #27, #28, #29, and #30 were constructed in 2001.

Emissions from Grinders #25 to #30 are controlled by Baghouse I, and exhaust to Stack I.

Baghouse F is common to Grinders #1 to #13.

Baghouse G is common to:
- - Grinders #14 to #20,
- - Automatic Deburring Machine.

Baghouse I is common to:
- - Shot Blast #7, and
- - Grinders #25 to #30.

Baghouse O is common to:
- - Tumble Blast #1,
- - Tumble Blast #2, and
- - Grinders #21 to #24.

SECTION D.6

(o) Automatic Deburring Machine
One (1) Automatic Deburring Machine, constructed in 2003, with a nominal throughput of 5.5 tons per hour of metal.

Emissions from the Automatic Deburring Machine are controlled by Baghouse G, and exhaust to Stack G.

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

SECTION D.7

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

(1) One (1) welding station used to repair defects in castings. [326 IAC 6-3-2]

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

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

SECTION D.7

(b) Not Specifically Regulated Insignificant Activities
This stationary source also includes the following insignificant activities, which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Natural gas-fired combustion sources with heat input equal to or less than ten million Btu per hour.

(2) Combustion source flame safety purging on startup.

(3) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, have a storage capacity less than or equal to 10,500 gallons.

(4) A petroleum fuel, other than gasoline, dispensing facility handling less than or equal to 1,300 gallons per day, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 2,300,000 tons.

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

(6) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(7) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(8) Application of oils, greases, lubricants of other nonvolatile materials applied as temporary protective coating.

(9) Cleaners and solvents characterized as follows:

(a) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100 ^{0}F); or

(b) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20 degrees C (68 ^{0}F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(10) Water based activities including the following:

(a) activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume;

(b) any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs;

(c) Water based adhesives that are less than or equal to five percent (5%) by volume of VOCs excluding HAPs;

(d) Noncontact cooling tower system with either of the following:

(1) Natural draft cooling towers not regulated under a NESHAP; and

(2) Forced and induced draft cooling tower systems not regulated under a NESHAP.

(11) Heat exchanger cleaning and repair.;

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

(13) Purging of gas lines and vessels that is related to routing maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.;

(14) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

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

(16) Filter or coalesce media changeout.

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

(18) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(19) Refractory storage not requiring air pollution control equipment.;

(20) Uncovered coal or coke conveying of less than or equal to one hundred twenty (120) tons per day.

(21) Filling drums, pails, or other packaging containers with the following:
(a) Lubricating oils
(b) Waxes
(c) Greases

(22) Closed loop heating and cooling systems.

(23) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following:

(a) Deburring
(b) Buffing
(c) Polishing
(d) Abrasive blasting
(e) Pneumatic conveying
(f) Woodworking operations

SECTION D.7

(c) Trivial Activities

The source also consists of the following trivial activities as defined in 326 IAC 2-7-1(40):

(1) Water-related activities including the production of hot water for on-site personal use not related to any industrial or production process.

(2) Activities related to ventilation, venting equipment, and refrigeration, including the following;

(a) Ventilation exhaust, central chiller water systems, refrigeration and air

conditioning equipment, not related to any industrial or production process including natural draft hoods or ventilating systems that do not remove air pollutants.

(b) Stack and vents from plumbing traps used to prevent the discharge of sewer gases, handling domestic sewage only, excluding those at wastewater treatment plants or those handling any industrial waste.

(c) Air vents from air compressors

(d) Vents for air cooling of electric motors provided the air does not commingle with regulated air pollutants.

(3) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment or vehicles at the source where air emissions from those activities would not be associated with any commercial production process including the following:

(a) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both of parking lots and roadways,

(b) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents

(c) Brazing, soldering or welding operations and associated equipment

(d) Batteries and battery charging stations except at battery manufacturing plants,

(e) Tarring, retarring and repair of building roofs

(4) Housekeeping and janitorial activities and supplies

(5) Office supplies and equipment

(6) Lawn care and landscape maintenance activities and equipment

(7) Storage of castings

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]

(a) This permit Part 70 Operating Permit 113-6491-00004 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 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

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

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) 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.

(d) 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.

B.9 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.10 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

B.11 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(1) and (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 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-7-16]

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans (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 violation of 326 IAC 2-7 and any other applicable rules.

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

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

B.13 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 in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued.

The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

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

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

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

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

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

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

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

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

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

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

B.14 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 the Part 70 Operating Permit 113-6491-00004, 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.15 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.16 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent.

A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

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

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

B.17 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 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.18 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4]

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, 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.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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

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

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

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

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

B.20 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.21 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

The Permittee shall make such records available, upon reasonable request, for public review.

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

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

written notification shall include the following:

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

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

(3) Any change in emissions; and

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

The notification which shall be submitted is not considered an application form, report or compliance certification.

Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

(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.22 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.23 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1]

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

(a) Enter upon the Permittee's premises where a 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.24 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

B.25 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.26 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.
The provisions of 326 IAC 1-7-2, 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 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
MC 61-52 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date.

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

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

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing.

An extension may be granted by IDEM, OAQ, if the source 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the 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
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [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 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 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 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" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

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

C.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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(e) The first report shall cover the period commencing on the date of issuance of this permit 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.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)]

Cupola Charge Handling

One (1) Cupola Charge Handling operation, constructed in 1970 and modified in 1984, with a nominal throughput of 43.2 tons per hour of metal.

Emissions from the Cupola Charge Handling 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 Particulate (PM) [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 43.23 pounds per hour when operating at a process weight rate of 43.2 tons of metal 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 (30 tons 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.1.2 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, a Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for the following units in cupola charge handling process:

(a) Afterburner; and

(b) Brick ring.

Compliance Determination Requirements

D.1.3 Notification Requirement

Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, the Permittee shall notify IDEM's current Office of Air Quality inspector by phone and in writing by phone at (317) 233-8437 and in writing via fax at (317) 233-6865 about every observation of visible dust crossing the property boundary at or near ground level from the cupola charge door within twenty-four hours of the observation or by the next business day.

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

D.1.4 Visible Emissions Notations

(a) Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, the visible emission notations of the cupola charge opening shall be performed once per shift 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.

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

D.1.5 Recordkeeping Requirements

(a) Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, the Permittee shall maintain records of the once per shift visible emissions notations of the cupola charge opening, and make such records available upon request to IDEM, OAQ. The Permittee shall include in its shift 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) Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, the Permittee shall maintain records of work practices, such as upper stack temperature, and maintenance practices, such as afterburner and brick ring preventive maintenance. The Permittee shall record the daily observations along with the work practice information, and corrective actions taken.

(c) Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, the Permittee shall keep the records at the Kendallville site for at least five (5) years and make them available to IDEM's representative upon request.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

Cupola Melt Furnace

(1) One (1) Cupola Melt Furnace, constructed in 1970 and modified in 1984, with a nominal melt rate of 38.0 tons of metal per hour.

Emissions from the Cupola Melt Furnace are controlled by Wet Scrubber M and two (2) natural gas-fired afterburners, and exhaust to Stack M.

Each afterburner is rated at a maximum heat input capacity of 5.0 million Btu per hour.

(2) One (1) natural gas-fired hot air blast preheater, with a maximum heat input rating of 18.0 million British thermal units (MMBtu) per hour, exhausting through one (1) stack (Stack 90).

(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 Particulate (PM) [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 Melt Furnace shall not exceed 42.06 pounds per hour when operating at a process weight rate of 38.0 tons of metal 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 (30 tons 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.2.2 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

Pursuant to Agreed Order No. 2001-11054-A Paragraph 12, a Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for the:

(a) Cupola Melt Furnace,

(b) Wet Scrubber M, and

(c) Afterburners.

Compliance Determination Requirements

D.2.3 Emission Controls [326 IAC 2-7-5(1)]

(a) Wet Scrubber M - Cupola Melt Furnace
The Wet Scrubber M 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) Afterburners - Cupola Melt Furnace
Pursuant to 326 IAC 9-1(CO Emission Limits), the two (2) 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.2.4 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

To demonstrate compliance with Condition 2.1 - Particulate, within 180 days after the issuance date of this Part 70 permit, the Permittee shall perform PM testing at the Wet Scrubber M and the afterburners using methods as approved by the Commissioner.

These tests shall be repeated at least once every two and a half (2.5) years from the date of the most recent valid compliance demonstration.

During these tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.2.7 - Scrubber Parametric Monitoring.

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.2.5 Visible Emissions Notations

(a) The visible emission notations of the Wet Scrubber M exhaust (Stack M) 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.2.6 Cupola Melt Furnace Temperature Monitoring

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.

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

From the date of issuance of this permit, 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 1300 ^{0}F. This minimum temperature requirement applies at all times during the Cupola Melt Furnace operation, except for the following:

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

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

(c) during the last 30 minutes of operation of the cupola.

An hourly average temperature that is below 1300 ^{0}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.

D.2.7 Scrubber Parametric Monitoring

(a) The Permittee shall record the:

(1) pressure drop and
(2) flow rate

of the Wet Scrubber M used in conjunction with the Cupola Melt Furnace, at least once per day, when the Cupola Melt Furnace is in operation and venting to the atmosphere.

(b) Pressure Drop
When for any one reading, the pressure drop across Wet Scrubber M is below a minimum of 48.0 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.

(c) Flow Rate
When for any one reading, the flow rate of Wet Scrubber M is below a minimum of 350 gallons per minute 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.

(d) A pressure reading or flow rate that is below the above mentioned minimum is not a deviation from this permit.

(e) Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.

(f) 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.2.8 Scrubber Failure Detection

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).

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

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.5 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet scrubber M 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).

(b) To document compliance with Condition D.2.6 - Cupola Melt Furnace Temperature Monitoring, the Permittee shall maintain records of the temperature readings of the upper stack and make such records available upon request to IDEM, OAQ.

(c) To document compliance with Condition D.2.7– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across the Wet Scrubber M. The Permittee shall include in its daily record when the pressure drop and flow rate reading are not taken and the reason for the lack of pressure drop and flow rate readings, (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.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

Herman Line

(1) One (1) Herman Pouring/Casting Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Pouring Line are uncontrolled, and exhaust through Vent #27 and Vent #28.

(2) One (1) Herman Cooling Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour,

Emissions from the Herman Cooling Line are uncontrolled, and exhaust through Vent #3 and Vent #71.

(3) One (1) Herman Shakeout Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Shakeout Line are controlled by Wet Scrubber C, and exhaust through Stack C.

Osborn Line

(1) One (1) Osborn Pouring/Casting Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Pouring/Casting Line are uncontrolled, and exhaust to Vent #30 and Vent #31.

(2) One (1) Osborn Cooling Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Cooling Line are uncontrolled, and exhaust to Vent #4, Vent 5, Vent #21, and Vent #70.

(3) One (1) Osborn Shakeout Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Shakeout Line are controlled by Wet Scrubber B and Wet Scrubber C, and exhaust to Stack B and Stack C.

Hotline Secondary Shakeout

One (1) casting shakeout line, referred to as the Hotline Secondary Shakeout, constructed in 1954, with a nominal throughput of 50.0 tons of metal per hour.

Emissions from the Hotline Secondary Shakeout are controlled by Wet Scrubber A and Wet Scrubber B, and exhaust to Stack A and Stack B.

Sand Handling System

One (1) Sand Handling System, constructed in 1984, with a nominal throughput of 269.0 tons of sand per hour. The mold sand handling operations consist of raw material silos for sand and bond addition and in-process sand storage, a sand storage area, raw material sand and bond addition systems, sand transfer belt conveyors and elevators and a sand muller.

Emissions from the Sand Handling System are controlled by Wet Scrubbers A, B and C, and exhaust to Stacks A, B, and C, and by bin vent filters on the sand addition and bond silos.

(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 CO PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to PSD/SSM 113-25708-00004 and the requirements of 326 IAC 2-2-3 (PSD), the Best Available Control Technology (BACT), the Permittee shall comply with the following:

(1) Pouring: Emission limitation of 1.8 pounds of CO per ton iron produced.

(2) Cooling: Emission limitation of 2.88 pounds of CO per ton iron produced.

(3) Shakeout: Emission limitation of 1.32 pounds of CO per ton iron produced.

D.3.2 Particulate (PM) [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 Pouring/Casting (Vent #27 and Vent #28)
The allowable particulate emission rate from the Herman Pouring/Casting shall not exceed 54.72 pounds per hour when operating at a process weight rate of 20 tons of metal per hour and 120 tons of sand molds and cores per hour, for a total process weight rate of 140 tons per hour.

This PM limitation for the Herman Pouring/Casting is for Vent #27 and Vent #28 combined.

(b) Herman Cooling (Vent #3 and Vent #71)
The allowable particulate emission rate from the Herman Cooling shall not exceed 54.72 pounds per hour when operating at a process weight rate of 20 tons of metal per hour and 120 tons of sand molds and cores per hour, for a total process weight rate of 140 tons per hour.

This PM limitation for the Herman Cooling is for Vent #3 and Vent #71 combined.

(c) Herman Shakeout (Stack C)
The allowable particulate emission rate from the Herman Shakeout shall not exceed 54.72 pounds per hour when operating at a process weight rate of 20 tons of metal per hour and 120 tons of sand molds and cores per hour, for a total process weight rate of 140 tons per

hour.

(d) Osborn Pouring/Casting (Vent #30 and Vent #31)
The allowable particulate emission rate from the Osborn Pouring/Casting shall not exceed 57.67 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour and 160 tons of sand molds and cores per hour, for a total process weight rate of 185 tons per hour.

This PM limitation for the Osborn Pouring/Casting is for Vent #30 and Vent #31 combined.

(e) Osborn Cooling (Vent #4, Vent 5, Vent #21, and Vent #70)
The allowable particulate emission rate from the Osborn Cooling shall not exceed 57.67 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour and 160 tons of sand molds and cores per hour, for a total process weight rate of 185 tons per hour.

This PM limitation for the Osborn Cooling is for Vent #4, Vent 5, Vent #21, and Vent #70 combined.

(f) Osborn Shakeout (Stack B and Stack C)
The allowable particulate emission rate from the Osborn Shakeout shall not exceed 57.67 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour and 160 tons of sand molds and cores per hour, for a total process weight rate of 185 tons per hour.

This PM limitation for the Osborn Shakeout is for Stack B and Stack C combined.

(g) Hotline Secondary Shakeout (Stack A and Stack B)
The allowable particulate emission rate from the Hotline Secondary Shakeout shall not exceed 44.58 pounds per hour when operating at a process weight rate of 50 tons of metal per hour.

This PM limitation for the Hotline Secondary Shakeout is for Stack A and Stack B combined.

(h) Sand Handling System (Stack A, Stack B, and Stack C)
The allowable particulate emission rate from the Sand Handling System shall not exceed 61.77 pounds per hour when operating at a process weight rate of 269.0 tons of sand per hour.

This PM limitation for the Sand Handling System is for Stack A, Stack B, and Stack C and 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 (30 tons 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

(j) To demonstrate compliance with Condition D.3.2 - Particulate (PM), the combined emissions from Stacks A, B, and C, based on the test results, shall not exceed 61.77 pounds per hour.

D.3.3 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for the:

(a) Herman Line,
(Herman Pouring/Casting, Herman Cooling, and Herman Shakeout)

(b) Osborn Line,
(Osborn Pouring/Casting, Osborn Cooling, and Osborn Shakeout)

(c) Hotline Secondary Shakeout,

(d) Sand Handling System,

(e) Wet Scrubber A,

(f) Wet Scrubber B, and

(g) Wet Scrubber C.

Compliance Determination Requirements

D.3.4 Emission Control [326 IAC 2-7-5(1)]

(a) Wet Scrubber A
The Wet Scrubber A for particulate emission control shall be in operation and control emissions from the Hotline Secondary Shakeout and Sand Handling System at all times when any of these processes is in operation.

(b) Wet Scrubber B
The Wet Scrubber B for particulate emission control shall be in operation and control emissions from the Osborn Shakeout, Hotline Secondary Shakeout, and Sand Handling System at all times when any of these processes is in operation.

(c) Wet Scrubber C
The Wet Scrubber C for particulate emission control shall be in operation and control emissions from the Herman Shakeout, Osborn Shakeout, and Sand Handling System at all times when any of these processes is in operation.

D.3.5 Operating Requirement

Pursuant to Agreed Order No. 2001-11054-A Paragraph 6, the Permittee shall implement a periodic maintenance program, including, but not limited to replacement of at least twenty-five (25%) of circulated water with addition of the corresponding amount of make-up water to the scrubber clarifiers for scrubbers B and C during the first week of each operating quarter; weekly addition of the flocculants in quantities recommended by the scrubbers' manufacturers and other relevant activities.

D.3.6 Notification Requirement

Pursuant to Agreed Order No. 2001-11054-A Paragraph 8, the Permittee shall notify IDEM's current Office of Air Quality inspector by phone and in writing of every event of deviation from the requirements under 326 IAC 6-4 as applicable to emissions from Scrubber B and visible emissions as applicable to emissions from scrubber B and parametric monitoring requirements under Conditions D.3.8 and D.3.9 as applicable to emissions from Scrubber B, and of each observation of visible dust lasting longer than sixty seconds and leaving the property boundary at or near ground level as emissions from Scrubber B, by phone at (317)233-8437 and in writing via fax at (317) 233-6865 within twenty-four hours of the event or observation or by the next business day.

D.3.7 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

To demonstrate compliance with Condition 3.2 - Particulate, within 365 days after the issuance date of this Part 70 permit, the Permittee shall perform PM testing on Wet Scrubbers A, B, and C using methods as approved by the Commissioner.

These PM tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

During the PM tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.3.9 - Scrubber Parametric Monitoring.

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.3.8 Visible Emissions Notations

(a) The visible emission notations of the following exhausts:

(1) Wet Scrubber A exhaust (Stack A) at least once per day,

(2) Wet Scrubber B exhaust (Stack B) at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 7, and

(3) Wet Scrubber C exhaust (Stack C) at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 10

shall be performed 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.3.9 Scrubber Parametric Monitoring

(a) The Permittee shall record the pressure drops and flow rates of the:

(1) Wet Scrubber A at least once per day,

(2) Wet Scrubber B at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 7, and

(3) Wet Scrubber C at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 10

used in conjunction with the Herman Shakeout, Osborn Shakeout, Hotline Secondary Shakeout, and Sand Handling System when any of these processes is in operation and venting to the atmosphere.

(b) Pressure Drop
When for any one reading, the pressure drop across Wet Scrubbers A, B, or C is below the minimum pressure drop as listed in the table below 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.

(c) Flow Rate
When for any one reading, the flow rate of Wet Scrubbers A, B, or C is below the minimum flow rates as listed in the table below 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.

Wet Scrubber ID	Pressure Drop	Flow Rate
Wet Scrubber A	5.0 inches of water	150 gallons per minute
Wet Scrubber B	6.0 inches of water	180 gallons per minute
Wet Scrubber C	6.0 inches of water	180 gallons per minute

(d) A pressure reading or flow rate that is below the above mentioned minimum is not a deviation from this permit.

(e) Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(f) 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.3.10 Scrubber Failure Detection

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).

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

D.3.11 Record Keeping Requirements

(a) To document compliance with Condition D.3.8 - Visible Emissions Notations, the Permittee shall maintain records of the visible emission notations of the:

(1) Wet Scrubber A exhaust (Stack A) at least once per day,
(2) Wet Scrubber B exhaust (Stack B) at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 7, and
(3) Wet Scrubber C exhaust (Stack C) at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 10

and make such records available upon request to IDEM, OAQ.

(b) To document compliance with Condition D.3.9 - Scrubber Parametric Monitoring, the Permittee shall maintain records of the pressure drop and flow rate readings of the following wet scrubbers and make such records available upon request to IDEM, OAQ:

(1) Wet Scrubber A at least once per day,
(2) Wet Scrubber B at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 7, and
(3) Wet Scrubber C at least once per shift pursuant to Agreed Order No. 2001-11054-A Paragraph 10.

(c) Pursuant to Agreed Order No. 2001-11054-A Paragraph 7 for Scrubber B and Paragraph 10 for Scrubber C, the Permittee shall keep the records required in (a) and (b) above at the Kendallville site for at least five (5) years and make them available to IDEM's representative upon request.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

Sprue and Sand Transport System

One (1) Sprue and Sand Transport System, constructed in 1984, with a nominal throughput of 7.7 tons of metal per hour.

Emissions from the Sprue and Sand Transport System controlled by Baghouse P, and exhaust to Stack P.

(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 Particulate (PM) [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 Sprue and Sand Transport System shall not exceed 16.10 pounds per hour when operating at a process weight rate of 7.7 tons of metal per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour (30 tons per hour) shall be accomplished by use of the equation:

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

D.4.2 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for the:

(a) Sprue and Sand Transport System, and

(b) Baghouse P.

Compliance Determination Requirements

D.4.3 Emission Control [326 IAC 2-7-5(1)]

(a) The Baghouse P for particulate emission control shall be in operation and control emissions from the Sprue and Sand Transport System at all times when the Sprue and Sand Transport System is in operation.

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

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

D.4.4 Visible Emissions Notations

(a) The visible emission notations of the Baghouse P exhaust (Stack P) 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.4.5 Baghouse Parametric Monitoring

(a) The Permittee shall record the pressure drop across Baghouse P, at least once per day when the associated process is in operation when venting to the atmosphere.

(b) When for any one reading, the pressure drop across the baghouses is outside the range of 2.0 and 9.0 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.

(c) A pressure reading that is outside the above mentioned range is not a deviation from this permit.

(d) 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.4.6 Broken or Failed Bag Detection

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

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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).

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

D.4.7 Record Keeping Requirements

(a) To document compliance with Condition D.4.4 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse P 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).

(b) To document compliance with Condition D.4.5– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse P. 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.5 FACILITY OPERATION CONDITIONS

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

South Line

(1) Core Sand Handling System
One (1) Core Sand Handling System, with a nominal throughput of 12.0 tons of sand per hour.

Emissions from the South Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer
One (1) mixer, identified as South Mixer #1, constructed in 1981, with nominal throughputs of 12.0 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the South Mixer #1 are uncontrolled, and exhaust to Vent #53.

(3) Core Machines
(a) One (1) Core Machine #30, constructed in 1981, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #31, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #32, constructed in 1979, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #33, constructed in 2000, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #40, approved for construction in 2006, with nominal throughputs of 3.5 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of South Line are controlled by Acid Scrubber T, and exhaust to Stack T.

Center Line

(1) Core Sand Handling
One (1) Core Sand Handling System, with a nominal throughput of 4.2 tons of sand per hour.

Emissions from the Center Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer
One (1) mixer, identified as Center Mixer #2, constructed in 1979, with nominal throughputs of 4.2 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the Center Mixer #2 are uncontrolled, and exhaust to Vent #48.

(3) Core Machines
(a) One (1) Core Machine #10, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #11, constructed in 1996, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #12, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #13, constructed in 1983, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of Center Line are controlled by Acid Scrubber T, and exhaust to Stack T.

North Line

(1) Core Sand Handling
One (1) Core Sand Handling System, with a nominal throughput of 5.1 tons of sand per hour.

Emissions from the North Line Core Sand Handling System are controlled by a bin vent filter.

(2) Mixer
One (1) mixer, identified as North Mixer #3, constructed in 1964, with nominal throughputs of 5.1 tons of sand per hour and 26 pounds of resin per ton of core sand.

Emissions from the North Mixer #3 are uncontrolled, and exhaust to Vent #50.

(3) Core Machines
(a) One (1) Core Machine #14, constructed in 1995, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #15, constructed in 1982, with nominal throughputs of 3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #16, constructed in 2000, with nominal throughputs of

3.0 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #23, constructed in 1968, with nominal throughputs of 1.8 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #21, constructed in 1968 and approved for modification in 2006, with nominal throughputs of 3.5 tons of core sand per hour, 26 pounds of resin per ton of core sand, and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

Core Wash

The Core Wash Dip Tanks are common to the South Line, Center Line, and North Line.

Emissions from these Core Wash Dip Tanks do not contain VOCs.

Core Ovens

Three (3) natural gas-fired core ovens, identified as Core Ovens #1, #2 and #3, each core oven is with a nominal throughput of 2.0 MMBtu per hour.

Core Ovens #1 and #2 were constructed prior to 1977 and Core Oven #3 was constructed in 2000.

Emissions from these three (3) core ovens exhaust through Stack #75, Stack #76, and Stack #77.

These core ovens are common to the South Line, Center Line, and North Line.

(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 VOC PSD Minor Limits [326 IAC 2-2]

(A) In order to render the VOC PSD requirements of 326 IAC 2-2 (PSD) not applicable to the Core Room, the following conditions shall apply:

(a) South Mixer #1 (Vent #53)

(1) The sand throughput to the South Mixer #1 shall not exceed 18,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The VOC emissions from the South Mixer #1 shall not exceed 0.383 pound per ton of core sand.

This sand throughput supersedes the sand throughput for South Mixer #1 specified in Permit 113-16474-00004, issued on February 5, 2003.

(b) Center Mixer #2 (Vent #48)

(1) The sand throughput to the Center Mixer #2 shall not exceed 18,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The VOC emissions from the Center Mixer #2 shall not exceed 0.383 pound per ton of core sand.

(c) North Mixer #3 (Vent #50)

(1) The sand throughput to the North Mixer #3 shall not exceed 19,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The VOC emissions from the North Mixer #3 shall not exceed 0.383 pound per ton of core sand.

(d) Core Machines of the South Line, Center Line, and North Line (Stack T)

(1) Sand Throughput
The total sand throughput to the core machines of the South Line, Center Line, and North Line shall not exceed 55,000 tons per 12 consecutive month period, with compliance determined at the end of each month

(2) TEA
The maximum Triethylamine (TEA) emissions from the Acid Scrubber T controlling the core machines of the South Line, Center Line, and North Line shall not exceed 0.001 pounds per ton of core sand.

(3) Non-TEA

(A) The VOC emissions from the resin at the core machine of the South Line, Center Line, and North Line shall not exceed 0.82 pounds per ton of core sand.

(B) The VOC emissions from the part spray at the core machine of the South Line, Center Line, and North Line shall not exceed 0.162 pounds per ton of core sand.

(C) The VOC emissions from the core box cleaner at the core machine of the South Line, Center Line, and North Line shall not exceed 0.076 pounds per ton of core sand.

(e) Core Wash
Pursuant to Permit 113-16474-00004, issued on February 5, 2003, the core wash used in the Core Wash Dip Tanks of the South Line, Center Line, and North Line shall contain no VOC.

Compliance with these limits is equivalent to VOC emissions less than 40 tons per year, therefore the requirements of 326 IAC 2-2 (PSD) do not apply to the Core Room.

(B) In order to render the VOC PSD requirements of 326 IAC 2-2 (PSD) not applicable to the modification of the South Line and North Line, the following conditions shall apply:

(a) The combined sand throughput from the South Mixer #1 to Core Machine #40 and from the North Mixer #3 to Core Machine #21 shall not exceed 8,530 tons per 12 consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the South Mixer #1 and the North Mixer #3 shall each not exceed 0.383 pound per ton of core sand.

(c) The VOC emissions from the resin at Core Machines #40 and #21shall not exceed 0.82 pound per ton of core sand.

(d) The emissions of VOC from the TEA catalyst usage at Core Machines #40 and #21shall not exceed 3.5 pounds per ton of core sand.

(e) The emissions of VOC from the parting spray usage at Core Machines #40 and #21 shall not exceed 0.574 pound per ton of core sand.

(f) The emissions of VOC from the core box cleaner usage at Core Machines #40 and #21 shall not exceed 0.561 pound per ton of core sand.

A summary of the above VOC emission limits is included in the following table:

VOC Limit (lbs/ton core sand)	Sand Throughput Limit (tons/yr)	VOC Emission Limit (tons/yr)
0.383 (Mixers)	8,530	1.63
0.82 (resin)	8,530	3.50
3.5 (catalyst)	8,530	14.93
0.574 (parting spray)	8,530	2.45
0.561 (core box cleaner)	8,530	2.39
Total		24.90

Compliance with these limits is equivalent to VOC emissions less than 40 tons per year, therefore the requirements of 326 IAC 2-2 (PSD) do not apply to the South Line and North Line.

D.5.2 VOC Limits [326 IAC 8-1-6]

In order to render the VOC BACT requirements of 326 IAC 8-1-6 (General Reductions for New Facilities) not applicable, the following conditions shall apply:

(a) Core Machine #30 - - 1981

(1) The TEA input to the Core Machine #30 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #30 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #30 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #30, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(b) Core Machine #15 - - 1982

(1) The TEA input to the Core Machine #15 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #15 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #15 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #15, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(c) Core Machine #13 - - 1983

(1) The TEA input to the Core Machine #13 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #13 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #13 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #13, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(d) Core Machine #14 - - 1995

(1) The TEA input to the Core Machine #14 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #14 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #14 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #14, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(e) Core Machine #11 - - 1996

(1) The TEA input to the Core Machine #11 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #11 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #11 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #11, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(f) Core Machine #16 - - 2000

(1) The TEA input to the Core Machine #16 shall not exceed 19.9 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #16 shall not exceed 9,472 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #16 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #16, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

(g) Core Machine #33 - - 2000

(1) The TEA input to the Core Machine #33 shall not exceed 14.7 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The sand throughput to the Core Machine #33 shall not exceed 7,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(3) The non-TEA VOC emissions from the resin evaporation at the Core Machine #33 shall not exceed 0.82 pounds per ton of core sand.

Compliance with these limits is equivalent to VOC emissions less than 25 tons per year from Core Machine #33, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

These limits for the Core Machine #33 were incorporated into this Part 70 Permit from Permit 113-16474-00004, issued on February 5, 2003.

(h) Core Machines #40 and #21 - - 2006

(1) The combined sand throughput from the South Mixer #1 to Core Machine #40 and from the North Mixer #3 to Core Machine #21 shall not exceed 8,530 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The VOC emissions from the South Mixer #1 and the North Mixer #3 shall each not exceed 0.383 pound per ton of core sand.

(3) The VOC emissions from the resin at Core Machines #40 and #21 shall not exceed 0.82 pound per ton of core sand.

(4) The emissions of VOC from the TEA catalyst usage at Core Machines #40 and #21 shall not exceed 3.5 pounds per ton of core sand.

(5) The emissions of VOC from the parting spray usage at Core Machines #40 and #21 shall not exceed 0.574 pound per ton of core sand.

(6) The emissions of VOC from the core box cleaner usage at Core Machines #40 and #21 shall not exceed 0.561 pound per ton of core sand.

A summary of the above VOC emission limits is included in the following table:

VOC Limit (lbs/ton core sand)	Sand Throughput Limit (tons/yr)	VOC Emission Limit (tons/yr)
0.383 (Mixers)	8,530	1.63
0.82 (resin)	8,530	3.50
3.5 (catalyst)	8,530	14.93
0.574 (parting spray)	8,530	2.45
0.561 (core box cleaner)	8,530	2.39
Total		24.90

Compliance with these limits is equivalent to VOC emissions of less than 25 tons per year from Core Machines #40 and #21, therefore, the requirements of 326 IAC 8-1-6 (General Reduction for New Facilities) do not apply.

D.5.3 PM and PM_{10} Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

(a) South Line Core Sand Handling (Bin Vent)

(1) The sand throughput to South Line Core Sand Handling shall not exceed 18,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The PM emissions from the bin vent controlling the South Line Core Sand Handling System shall not exceed 1.354 pounds per ton of core sand.

(3) The PM_{10} emissions from the bin vent controlling the South Line Core Sand Handling System shall not exceed 0.790 pounds per ton of core sand.

These PM and PM_{10} emission rates are derived from Permit 113-16474-00004, issued on February 5, 2003

Compliance with these limits is equivalent to PM and PM_{10} emissions of less than 25 and 15 tons per year respectively; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

(b) Center Line Core Sand Handling (Bin Vent)

(1) The sand throughput to Center Line Core Sand Handling shall not exceed 18,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The PM emissions from the bin vent controlling the Center Line Core Sand Handling System shall not exceed 1.354 pounds per ton of core sand.

(3) The PM_{10} emissions from the bin vent controlling the Center Line Core Sand Handling System shall not exceed 0.790 pounds per ton of core sand.

Compliance with these limits is equivalent to PM and PM_{10} emissions of less than 25 and 15 tons per year respectively; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

(c) North Line Core Sand Handling (Bin Vent)

(1) The sand throughput to North Line Core Sand Handling shall not exceed 19,000 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The PM emissions from the bin vent controlling the North Line Core Sand Handling System shall not exceed 1.354 pounds per ton of core sand.

(3) The PM_{10} emissions from the bin vent controlling the North Line Core Sand Handling System shall not exceed 0.790 pounds per ton of core sand.

Compliance with these limits is equivalent to PM and PM_{10} emissions of less than 25 and 15 tons per year respectively; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

(d) South Line Core Sand Handling for Core Machine #40 and North Line Core Sand Handling for Core Machine #21

(1) The combined sand throughput from the South Line Core Sand Handling to Core Machine #40 and from the North Line Core Sand Handling to Core Machine #21 shall not exceed 8,530 tons per 12 consecutive month period, with compliance determined at the end of each month.

(2) The PM emissions from the bin vent controlling the South Line Core Sand Handling System shall not exceed 1.354 pounds PM per ton of core sand;

(3) The PM10 emissions from the bin vent controlling the South Line Core Sand Handling System shall not exceed 0.790 pound PM10 per ton of core sand.

(4) The PM emissions from the bin vent controlling the North Line Core Sand Handling System shall not exceed 1.354 pounds PM per ton of core sand;

(5) The PM10 emissions from the bin vent controlling the North Line Core Sand Handling System shall not exceed 0.790 pound PM10 per ton of core sand.

Compliance with these limits is equivalent to PM and PM_{10} emissions of less than 25 and 15 tons per year respectively; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

D.5.4 Particulate (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) Mixer

(1) South Mixer #1 (Vent #53)
The allowable particulate emission rate from the South Mixer #1 shall not exceed 21.67 pounds per hour when operating at a process weight rate of 12.0 tons of sand per hour.

(2) Center Mixer #2 (Vent #48)
The allowable particulate emission rate from the Center Mixer #2 shall not exceed 10.72 pounds per hour when operating at a process weight rate of 4.2 tons of sand per hour.

(3) North Mixer #3 (Vent #50)
The allowable particulate emission rate from the North Mixer #3 shall not exceed 12.21 pounds per hour when operating at a process weight rate of 5.1 tons of sand per hour.

(b) Core Sand Handling

(1) South Line Core Sand Handling (Bin Vent)
The allowable particulate emission rate from the South Line Core Sand Handling shall not exceed 21.67 pounds per hour when operating at a process weight rate of 12.0 tons of sand per hour.

(2) Center Line Core Sand Handling (Bin Vent)
The allowable particulate emission rate from the Center Line Core Sand Handling shall not exceed 10.72 pounds per hour when operating at a process weight rate of 4.2 tons of sand per hour.

(3) North Line Core Sand Handling (Bin Vent)
The allowable particulate emission rate from the North Line Core Sand Handling shall not exceed 12.21 pounds per hour when operating at a process weight rate of 5.1 tons of sand per hour.

(c) These 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 (30 tons 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.5.5 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for the following:

(a) South Line,
(South Mixer #1, South Line Core Sand Handling, Core Machine #30, Core Machine #31, Core Machine #32, Core Machine #33, and Core Machine #40)

(b) Center Line,
(Center Mixer #2, Center Line Sand Handling, Core Machine #10, Core Machine #12, and Core Machine #13)

(c) North Line,
(North Mixer #3, North Line Sand Handling, Core Machine #14, Core Machine #15, Core Machine #16, Core Machine #23, and Core Machine #21)

(d) Acid Scrubber T, and

(e) Bin Vents.

Compliance Determination Requirements

D.5.6 Emission Controls [326 IAC 2-7-5(1)]

(a) Acid Scrubber T
The Acid Scrubber T for TEA emissions control shall be in operation and control emissions from the core machines of the South Line, Center Line, and North Line, at all times when any of these core machines is in operation.

(b) Bin Vents
The bin vent filters for PM control shall be in operation and control emissions from the South Line Core Sand Handling, Center Line Core Sand Handling, and North Line Core Sand Handling at all times that any of this sand handling is in operation.

D.5.7 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.5.1 VOC PSD Minor Limit, within 180 days after the issuance date of this Part 70 permit, the Permittee shall perform VOC and catalyst (TEA) testing for the Acid Scrubber T exhaust (Stack T), using methods as approved by the Commissioner.

These tests shall be repeated at least once every two and a half (2.5) years from the date of the most recent valid compliance demonstration.

During these tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Conditions D.5.10 - Scrubber Parametric Monitoring.

Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within 60 days of achieving the maximum production capacity, but no later than 180 days after start-up of core machines #40 or #21, in order to demonstrate compliance with Condition D.5.1(B) and D.5.2(h), the Permittee shall perform VOC testing on the uncontrolled exhaust of one (1) of the core machines identified as #40 or #21 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.

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

D.5.8 Visible Emissions Notations

(a) The visible emission notations of the Bin Vents 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.5.9 Flow Meters for TEA Input

(a) In order to demonstrate compliance with Condition D.5.2 - VOC Limits, the Permittee shall install, calibrate, operate, and maintain a flow meter for each of the following core machines to measure the TEA input:

(1) Core Machine #30 - - 1981,

(2) Core Machine #15 - - 1982,

(3) Core Machine #13 - - 1983,

(4) Core Machine #14 - - 1995,

(5) Core Machine #11 - - 1996,

(6) Core Machine #16 - - 2000,

(7) Core Machine #33 - - 2000,

(8) Core Machine #40 - - 2006, and

(9) Core Machine #21 - - 2006.

(b) The flow meters used for measuring the TEA input 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.5.10 Scrubber Parametric Monitoring

(a) The Permittee shall record the following:

(1) pressure drop of the Acid Scrubber T,

(2) flow rate of the Acid Scrubber T, and

(3) pH of the scrubber solution,

at least once per day when any of the core machines of the South Line, Center Line, and North Line is in operation and venting to the atmosphere.

(b) Pressure Drop
When for any one reading, the pressure drop across Acid Scrubber T is outside the normal range of 0.5 to 3.0 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 not within the above mentioned normal range is not a deviation from this permit.

(c) Flow Rate
When for any one reading, the flow rate of Wet Scrubber T is below a minimum of 200 gallons per minute 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 flow rate reading that is below the above mentioned minimum is not a deviation from this permit.

(d) pH Level
When for any one reading, the pH level of the scrubbing solution exceeds the normal maximum of 4.5 or a maximum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pH reading that is not within the above mentioned normal range is not a deviation from this permit.

(e) Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(f) The instruments used for determining the pressure, flow rate, and pH 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.5.11 Scrubber and Bin Vent Failure Detection

(a) Acid Scrubber T
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).

(b) Bin Vents
For a bin vent, the failed bin vent 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).

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

D.5.12 Record Keeping Requirements

(a) To document compliance with Condition D.5.1 - VOC PSD Minor Limits, the Permittee shall maintain records of the sand throughputs of the following:

(1) South Mixer #1,

(2) Center Mixer #2,

(3) North Mixer #3,

(4) All core machines of the South Line, Center Line, and North Line,

(b) To document compliance with Conditions D.5.2 - VOC Limits and D.5.9 - Flow Meters For TEA Input, the Permittee shall maintain records of the TEA input and sand throughputs of the following core machines:

(1) Core Machine #30,

(2) Core Machine #15,

(3) Core Machine #13,

(4) Core Machine #14,

(5) Core Machine #11,

(6) Core Machine #16,

(7) Core Machine #33,

(8) Core Machine #40, and

(9) Core Machine #21.

(c) To document compliance with Condition D.5.2(h), the Permittee shall maintain records of the monthly usage of parting spray and core box cleaner in Core Machines #40 and #21.

(d) To document compliance with Condition D.5.8 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the Bin Vent 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.5.10– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the Acid Scrubber T. 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).

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

D.5.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.5.1 - VOC PSD Minor Limits, and D.5.2 VOC 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 its 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)]

Shot Blast Machines, Grinders and Automatic Deburring Machine

Six (6) Shot Blast Machines

(1) One (1) Wheelbrator shot blast machine, referred to as Tumble Blast #1, constructed in 1964, with a nominal throughput of 14.5 tons of metal castings per hour.

Emissions from Tumble Blast #1 are controlled by Baghouse O, and exhaust to Stack O.

(2) One (1) Wheelbrator shot blast machine, referred to as Tumble Blast #2, constructed in 1964, with a nominal throughput of 14.5 tons of metal castings per hour.

Emissions from Tumble Blast #2 are controlled by Baghouse O, and exhaust to Stack O.

(3) One (1) Pangborn shot blast machine, referred to as Tumble Blast #4, constructed in 1979, with a nominal throughput of 11.0 tons of metal castings per hour.

Emissions from Tumble Blast #4 are controlled by Baghouse E, and exhaust to Stack E.

(4) One (1) Pangborn shot blast machine, referred to as Hanger Spinner Blast #5, constructed in 1980, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from the Hanger Spinner Blast #5 are controlled by Baghouse E, and exhaust to Stack E.

(5) One (1) Pangborn shot blast machine, referred to as Hanger Spinner Blast #6, constructed in 1983, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from the Hanger Spinner #6 are controlled by Baghouse H, and exhaust to Stack H.

(6) One (1) shot blast machine, referred to as Shot Blast #7, constructed in 1999, with a nominal throughput of 14.0 tons of metal castings per hour.

Emissions from Shot Blast #7 are controlled by Baghouse I, and exhaust to Stack I.

Thirty (30) Grinders

(1) Thirteen (13) Setco grinders, referred to as Grinders #1 to #13, all constructed in 1980, each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from Grinders #1 to #13 are controlled by Baghouse F, and exhaust to Stack F.

(2) Seven (7) Setco grinders, referred to as Grinders #14 to #20, all constructed in 1980,

each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from Grinders #14 to #20 are controlled by Baghouse G, and exhaust to Stack G.

(3) Four (4) Setco grinders, referred to as Grinders #21 to #24, all constructed in 1998, each with a nominal throughput of 4.0 tons of metal castings per hour.

Emissions from the Grinders #21 to #24 are controlled by Baghouse O, and exhaust to Stack O.

(4) Six (6) Setco grinders, referred to as Grinders #25 to #30, each with a nominal throughput of 4.0 tons of metal castings per hour.

Grinders #25 and #26 were constructed in 2000 and Grinders #27, #28, #29, and #30 were constructed in 2001.

Emissions from Grinders #25 to #30 are controlled by Baghouse I, and exhaust to Stack I.

Automatic Deburring Machine

One (1) Automatic Deburring Machine, constructed in 2003, with a nominal throughput of 5.5 tons per hour of metal.

Emissions from the Automatic Deburring Machine are controlled by Baghouse G, and exhaust to Stack G.

Baghouse E is common to:
- - Tumble Blast #4,
- - Hanger Spinner Blast #5.

Baghouse F is common to Grinders #1 to #13.

Baghouse G is common to:
- - Grinders #14 to #20,
- - Automatic Deburring Machine.

Baghouse I is common to:
- - Shot Blast #7, and
- - Grinders #25 to #30.

Baghouse O is common to:
- - Tumble Blast #1,
- - Tumble Blast #2, and
- - Grinders #21 to #24.

(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 and PM_{10} PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following particulate emission requirements shall apply:

(a) Baghouse E (Tumble Blast #4 and Hanger Spinner Blast #5)

(1) The PM emissions from Baghouse E shall not exceed 5.68 pounds per hour.

(2) The PM_{10} emissions from Baghouse E shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

(b) Baghouse F (Grinders #1 to #13)

(1) The PM emissions from Baghouse F shall not exceed 5.68 pounds per hour.

(2) The PM_{10} emissions from Baghouse F shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

(c) Baghouse G (Grinders #14 to #20 and Automatic Deburring Machine)

(1) The PM emissions from Baghouse G shall not exceed 5.68 pounds per hour.

(2) The PM_{10} emissions from Baghouse G shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

(d) Baghouse H (Hanger Spinner Blast #6)

(1) The PM emissions from Baghouse H shall not exceed 5.68 pounds per hour.

(2) The PM_{10} emissions from Baghouse H shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

(e) Baghouse I (Shot Blast #7 and Grinders #25 to #30)

(1) Pursuant to SSM 113-11287-00004 issued on November 3, 1999, the PM emissions from Baghouse I shall not exceed 5.68 pounds per hour.

(2) Pursuant to SSM 113-11287-00004 issued on November 3, 1999, the PM_{10} emissions from Baghouse I shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

(f) Baghouse O (Tumble Blast #1, Tumble Blast #2, and Grinders #21 to #24)

(1) The PM emissions from Baghouse O shall not exceed 5.68 pounds per hour.

(2) The PM_{10} emissions from Baghouse O shall not exceed 3.40 pounds per hour.

Compliance with these limits will render the PSD requirements for PM and PM_{10} under 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits will also demonstrate compliance with the PM allowable emission rates specified in Condition D.6.2 - Particulate (PM).

D.6.2 Particulate (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

(a) The allowable particulate emission rate from the Tumble Blast #1 shall not exceed 24.60 pounds per hour when operating at a process weight rate of 14.5 tons of metal castings per hour.

(b) The allowable particulate emission rate from the Tumble Blast #2 shall not exceed 24.60 pounds per hour when operating at a process weight rate of 14.5 tons of metal castings per hour.

(c) The allowable particulate emission rate from the Tumble Blast #4 shall not exceed 20.44 pounds per hour when operating at a process weight rate of 11.0 tons of metal castings per hour.

(d) The allowable particulate emission rate from the Hanger Spinner Blast #5 shall not exceed 24.03 pounds per hour when operating at a process weight rate of 14.0 tons of metal castings per hour.

(e) The allowable particulate emission rate from the Hanger Spinner Blast #6 shall not exceed 24.03 pounds per hour when operating at a process weight rate of 14.0 tons of metal castings per hour.

(f) Pursuant to SS M113-11287-00004, issued on November 3, 1999 and AA 113-14445-00004, issued on August 28, 2001, the allowable particulate emission rate from the Shot Blast #7 shall not exceed 24.03 pounds per hour when operating at a process weight rate of 14.0 tons of metal castings per hour.

(g) Pursuant to SSM 113-11287-00004, issued on November 3, 1999 and AA 113-14445-00004, issued on August 28, 2001, the allowable particulate emission rate from each Grinders #25 to #30 shall not exceed 10.38 pounds per hour when operating at a process weight rate of 4.0 tons of metal castings per hour each.

(h) The allowable particulate emission rate from each Grinders #1 to #24 shall not exceed 10.38 pounds per hour when operating at a process weight rate of 4.0 tons of metal castings per hour.

(i) The allowable particulate emission rate from the Automatic Deburring Machine shall not exceed 12.85 pounds per hour when operating at a process weight rate of 5.5 tons of metal castings per hour.

(j) These 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 (30 tons 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 (PMP) [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan (PMP), of this permit, is required for these shot blast machines, grinders, automatic deburring machine, and baghouses.

Compliance Determination Requirements

D.6.4 Emission Control [326 IAC 2-7-5(1)]

(a) The following baghouses for particulate emission control shall be in operation and control emissions from the associated shot blast machines, grinders and automatic deburring machine at all times when any of these emissions units is in operation:

(1) Baghouse E - Tumble Blast #4, and Hanger Spinner Blast #5,

(2) Baghouse F - Grinders #1 to #13,

(3) Baghouse G - Grinders #14 to #20, and Automatic Deburring Machine,

(4) Baghouse H - Hanger Spinner Blast #6,

(5) Baghouse I - Shot Blast #7, and Grinders #25 to #30, and

(6) Baghouse O - Tumble Blast #1, Tumble Blast #2, and Grinders #21 to #24.

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

D.6.5 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

(a) To demonstrate compliance with Condition D.6.1 - PM and PM_{10} PSD Minor Limits, within 365 days after the issuance date of this Part 70 permit, the Permittee shall perform the following:

(1) PM testing, and

(2) PM_{10} testing

on at least two (2) of the baghouses controlling the shot blast machines, grinders, and automatic deburring machine, using methods as approved by the Commissioner.

(b) These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. The next cycle of tests shall be performed on two (2) of the remaining baghouses not previously tested, such that no two (2) baghouses are tested in successive tests.

(c) 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.9.7 - 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.6.6 Visible Emissions Notations

(a) The visible emission notations of the:

(1) Baghouse E exhaust (Stack E),

(2) Baghouse F exhaust (Stack F),

(3) Baghouse G exhaust (Stack G),

(4) Baghouse H exhaust (Stack H) ,

(5) Baghouse I exhaust (Stack I), and

(6) Baghouse O exhaust (Stack O)

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.6.7 Baghouse Parametric Monitoring

(a) The Permittee shall record the pressure drop across the following baghouses:

(1) Baghouse E,

(2) Baghouse F,

(3) Baghouse G,

(4) Baghouse H,

(5) Baghouse I, and

(6) Baghouse O

at least once per day when the associated process is in operation when venting to the atmosphere.

(b) When for any one reading, the pressure drop across the baghouses is outside the range listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.

Baghouse ID	Pressure Drop
Baghouse E	2.0 and 9.0 inches of water
Baghouse F	3.0 and 10.0 inches of water
Baghouse G	0.5 and 7.5 inches of water
Baghouse H	2.0 and 9.0 inches of water
Baghouse I	2.0 and 9.0 inches of water
Baghouse O	3.0 and 10.0 inches of water

(c) A pressure reading that is outside the above mentioned range is not a deviation from this permit.

(d) 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 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

(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).

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.6.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the Baghouse E, Baghouse F, Baghouse G, Baghouse H, Baghouse I and Baghouse O 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.6.7– Baghouse Parametric Monitoring, the

Permittee shall maintain the daily records of the pressure drop across Baghouse E, Baghouse F, Baghouse G, Baghouse H, Baghouse I and Baghouse O. 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.7 FACILITY OPERATION CONDITIONS

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

Insignificant Activities and Trivial Activities

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

(1) One (1) welding station used to repair defects in castings. [326 IAC 6-3-2]

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

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

(b) Not Specifically Regulated Insignificant Activities
This stationary source also includes the following insignificant activities, which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Natural gas-fired combustion sources with heat input equal to or less than ten million Btu per hour.

(2) Combustion source flame safety purging on startup.

(3) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, have a storage capacity less than or equal to 10,500 gallons.

(4) A petroleum fuel, other than gasoline, dispensing facility handling less than or equal to 1,300 gallons per day, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 2,30,000 tons.

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

(6) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(7) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(8) Application of oils, greases, lubricants of other nonvolatile materials applied as temporary protective coating.

(9) Cleaners and solvents characterized as follows:

(a) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100 ^{0}F); or

(b) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20 degrees C (68 ^{0}F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(10) Water based activities including the following:

(a) activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume;

(b) any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs;

(c) Water based adhesives that are less than or equal to five percent (5%) by volume of VOCs excluding HAPs;

(d) Noncontact cooling tower system with either of the following:

(1) Natural draft cooling towers not regulated under a NESHAP; and

(2) Forced and induced draft cooling tower systems not regulated under a NESHAP.

(11) Heat exchanger cleaning and repair.;

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

(13) Purging of gas lines and vessels that is related to routing maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.;

(14) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

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

(16) Filter or coalesce media changeout.

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

(18) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(19) Refractory storage not requiring air pollution control equipment.;

(20) Uncovered coal or coke conveying of less than or equal to one hundred twenty (120) tons per day.

(21) Filling drums, pails, or other packaging containers with the following:
(a) Lubricating oils

(b) Waxes
(c) Greases

(22) Closed loop heating and cooling systems.

(23) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following:
(a) Deburring
(b) Buffing
(c) Polishing
(d) Abrasive blasting
(e) Pneumatic conveying
(f) Woodworking operations

(c) Trivial Activities
The source also consists of the following trivial activities as defined in 326 IAC 2-7-1(40):

(1) Water-related activities including the production of hot water for on-site personal use not related to any industrial or production process.

(2) Activities related to ventilation, venting equipment, and refrigeration, including the following:

(a) Ventilation exhaust, central chiller water systems, refrigeration and air conditioning equipment, not related to any industrial or production process including natural draft hoods or ventilating systems that do not remove air pollutants.

(b) Stack and vents from plumbing traps used to prevent the discharge of sewer gases, handling domestic sewage only, excluding those at wastewater treatment plants or those handling any industrial waste.

(c) Air vents from air compressors

(d) Vents for air cooling of electric motors provided the air does not commingle with regulated air pollutants.

(3) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment or vehicles at the source where air emissions from those activities would not be associated with any commercial production process including the following:

(a) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both of parking lots and roadways,

(b) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents

(c) Brazing, soldering or welding operations and associated equipment

(d) Batteries and battery charging stations except at battery manufacturing plants,

(e) Tarring, retarring and repair of building roofs

(4) Housekeeping and janitorial activities and supplies

(5) Office supplies and equipment

(6) Lawn care and landscape maintenance activities and equipment

(7) Storage of castings

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

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

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

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

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

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

D.7.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for a cold cleaner degreaser facility construction of which commenced after July 1, 1990, the Permittee 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 which lists the operating requirements outlined in subsection (b).

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

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (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^{O}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), for a cold cleaning facility construction of which commenced after July 1, 1990, the Permittee 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.7.3 Particulate (PM) [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 limitation as calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour (30 tons 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)] - - 40 CFR 63 Subpart EEEEE

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

Cupola Melt Furnace

One (1) Cupola Melt Furnace, constructed in 1970 and modified in 1984, with a nominal melt rate of 38.0 tons of metal per hour.

Emissions from the Cupola Melt Furnace are controlled by Wet Scrubber M, and two (2) natural gas-fired afterburners, and exhaust to Stack M.

Each afterburner is rated at a nominal heat input capacity of 5.0 million Btu per hour.

Herman Line

One (1) Herman Pouring/Casting Line, constructed in 1970, with nominal throughputs of 20.0 tons of metal per hour and 120 tons of sand molds and cores per hour.

Emissions from the Herman Pouring Line are uncontrolled, and exhaust through Vent #27 and Vent #28.

Under the NESHAP 40 CFR 63, Subpart EEEEE, this Herman Pouring Line is classified as a pouring station.

Osborn Line

One (1) Osborn Pouring/Casting Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Pouring Line are uncontrolled, and exhaust to Vent #30 and Vent #31.

Under the NESHAP 40 CFR 63, Subpart EEEEE, this Osborn Pouring Line is classified as a pouring station.

South Line

(a) One (1) Core Machine #30, constructed in 1981, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #31, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #32, constructed in 1979, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #33, constructed in 2000, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #40, approved for construction in 2006, with nominal throughputs of 3.5 tons of core sand per hour and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of South Line are controlled by Acid Scrubber T, and exhaust to Stack T.

Center Line

(a) One (1) Core Machine #10, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #11, constructed in 1996, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #12, constructed in January 1977, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #13, constructed in 1983, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of Center Line are controlled by Acid Scrubber T, and exhaust to Stack T.

North Line

(a) One (1) Core Machine #14, constructed in 1995, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(b) One (1) Core Machine #15, constructed in 1982, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(c) One (1) Core Machine #16, constructed in 2000, with nominal throughputs of 3.0 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #23, constructed in 1968, with nominal throughputs of 1.8 tons of core sand per hour and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #21, constructed in 1968 and approved for modification in 2006, with nominal throughputs of 3.5 tons of core sand per hour and 3.5 pounds of catalyst per ton of core sand.

The catalyst used is Triethylamine (TEA).

Emissions from these core machines of North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

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

E.1.1 General Provisions Relating to NESHAP for Metal and Steel Foundries [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.7682(b), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected source, as specified in Appendix A of 40 CFR Part 63, Subpart EEEEE, in accordance with the schedule in 40 CFR 63 Subpart EEEEE.

E.1.2 NESHAP for Metal 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 40 CFR Part 63.7682, for the affected source, as specified as follows:

(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 One Time Deadline Relating to NESHAP for Metal and Steel Foundries Requirements [40 CFR Part 63, Subpart EEEEE]

The Permittee must submit the Initial Notification by August 20, 2004.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004

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:
Telephone:
Date:

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

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004

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

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

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

Page 2 of 2 of the Emergency Occurrence Report

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

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
Telephone:

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004

Months: _____ to _____ Year: _____

Page 1 of 2 of the Quarterly Deviation and Compliance Monitoring

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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do 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:	

Page 2 of 2 of the Quarterly Deviation and Compliance Monitoring Report

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:	

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	South Mixer #1
Parameter:	Sand Throughput
Limit:	18,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

South Mixer #1			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	Center Mixer #2
Parameter:	Sand Throughput
Limit:	18,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

Center Mixer #2			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	North Mixer #3
Parameter:	Sand Throughput
Limit:	19,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

North Mixer #3			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	South Line Core Sand Handling
Parameter:	Sand Throughput
Limit:	18,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

South Line Core Sand Handling			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	Center Line Core Sand Handling
Parameter:	Sand Throughput
Limit:	18,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

Center Line Core Sand Handling			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	North Line Core Sand Handling
Parameter:	Sand Throughput
Limit:	19,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

North Line Core Sand Handling			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	All Core Machines of the South Line, Center Line, and North Line
Parameter:	Sand Throughput
Limit:	55,000 tons of sand per 12 consecutive month period, with compliance determined at the end of each month (Section D.5) This sand throughput limit is specified in order to render 326 IAC 2-2 (PSD) not applicable.

All Core Machines of the South Line, Center Line and North Line			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: **Dalton Corporation, Kendallville Manufacturing Facility**
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machine #30, Core Machine #15, Core Machine #13, Core Machine #14, Core Machine #11, Core Machine #16
Parameter: TEA input
Limit: 19.9 tons of TEA input per 12 consecutive month period, for each core machine, with compliance determined at the end of each month (Section D.5)

These limits are specified in order to render 326 IAC 8-1-6 not applicable.

This Part 70 Operating Permit Quarterly Report consists of 2 pages.

YEAR:		QUARTER:	
Core Machine #30, Core Machine #15, Core Machine #13			
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #30 (1981)			
Core Machine #15 (1982)			
Core Machine #13 (1983)			

This Part 70 Operating Permit Quarterly Report consists of 2 pages.			
Core Machine #14, Core Machine #11, Core Machine #16			
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #14 (1995)			
Core Machine #11 (1996)			
Core Machine #16 (2000)			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machine #30, Core Machine #15, Core Machine #13, Core Machine #14, Core Machine #11, Core Machine #16
Parameter: Sand Throughput
Limit: 9,471.3 tons of sand per 12 consecutive month period, for each core machine, with compliance determined at the end of each month (Section D.5)

These limits are specified in order to render 326 IAC 8-1-6 not applicable.

This Part 70 Operating Permit Quarterly Report consists of 2 pages.

YEAR:		QUARTER:	
Core Machine #30, Core Machine #15, Core Machine #13			
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #30 (1981)			
Core Machine #15 (1982)			
Core Machine #13 (1983)			

This Part 70 Operating Permit Quarterly Report consists of 2 pages.			
Core Machine #14, Core Machine #11, Core Machine #16			
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #14 (1995)			
Core Machine #11 (1996)			
Core Machine #16 (2000)			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: **Dalton Corporation, Kendallville Manufacturing Facility**
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machine #33
Parameter: TEA Input
Limit: 14.7 tons of TEA per 12 consecutive month period, for each core machine, with compliance determined at the end of each month (Section D.5)

This TEA input limit is specified in order to render 326 IAC 8-1-6 not applicable.

Core Machine #33			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: **Dalton Corporation, Kendallville Manufacturing Facility**
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machine #33
Parameter: Sand Throughput
Limit: 7,000 tons of sand per 12 consecutive month period, for each core machine, with compliance determined at the end of each month (Section D.5)

This sand throughput limit is specified in order to render 326 IAC 8-1-6 not applicable.

Core Machine #33			
YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE DATA SECTION
100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.:	113-6491-00004
Facility:	Core Machines #40 and #21
Parameter:	Sand Throughput
Limit:	8,530 tons of sand per 12 consecutive month period combined for both core machines, with compliance determined at the end of each month. (Section D.5) These limits are specified in order to render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable.

YEAR:		QUARTER:	
Core Machine #40 and Core Machine #21			
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #40 (2006)			
Core Machine #21 (2006)			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machines #40 and #21
Parameter: TEA usage
Limit: The emissions of VOC from the TEA catalyst usage at Core Machines #40 and #21 shall not exceed 3.5 pounds per ton of core sand. Based on a maximum sand throughput of 8,530 tons per year, this is equivalent to TEA usage limit of 14.93 tons per twelve (12) consecutive month period.
This limit is specified in order to render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable.

YEAR:		QUARTER:	
Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Core Machine #40			
Core Machine #21			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251

PART 70 OPERATING PERMIT QUARTERLY REPORT

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address: 200 West Ohio Street, Kendallville, Indiana 46755
Part 70 Permit No.: 113-6491-00004
Facility: Core Machines #40 and #21
Parameter: Parting Spray and Core Box Cleaner usage

Limit: (a) The emissions of VOC from the parting spray usage at Core Machines #40 and #21 shall not exceed 0.574 pound per ton of core sand.

(b) The emissions of VOC from the core box cleaner usage at Core Machines #40 and #21 shall not exceed 0.561 pound per ton of core sand.
Based on a maximum sand throughput of 8,530 tons per year, this is equivalent to parting spray and core box cleaner usage limits of 2.45 and 2.39 tons per twelve (12) consecutive month period, respectively.

These limits are specified in order to render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable.

This Part 70 Operating Permit Quarterly Report consists of 2 pages.

YEAR:			QUARTER:			
Month	Column 1		Column 2		Column 1 + Column 2	
	Parting Spray Usage This Month	Core Box Cleaner Usage This Month	Parting Spray Usage Previous 11 Months	Core Box Cleaner Usage Previous 11 Months	12 Month Total Parting Spray Usage	12 Month Total Core Box Cleaner Usage
Core Machine #40						
Core Machine #21						

This Part 70 Operating Permit Quarterly Report consists of 2 pages.

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

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

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, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, IN 46755
County:	Noble
SIC Code:	3321
Significant Permit Modification No.:	113-25804-00004
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 PSD **Significant Source Modification and Significant Permit** Modification to a Part 70 Permit

Source Description and Location

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, IN 46755
County:	Noble
SIC Code:	3321
Operation Permit No.:	T 113-6491-00004
Operation Permit Issuance Date:	July 5, 2006
Significant Source Modification No.:	113-25708-00004
Significant Permit Modification No.:	113-25804-00004
Permit Reviewer:	Josiah Balogun

Existing Approvals

The source was issued Part 70 Operating Permit No. 113-6491-00004 on July 5, 2006. The source has since received the following approvals:

(a) Significant Source Modification No. 113-23490-00004, issued on December 19, 2006.

(b) Significant Permit Modification No. 113-23518-00004, issued on January 16, 2007.

(c) Significant Permit Modification No. 113-24942-00004, issued on April 10, 2008.

County Attainment Status

The source is located in Noble County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) 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. Noble 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
Noble 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
Noble County has been classified as attainment or unclassifiable in Indiana for all other pollutant. 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	greater than 100
PM10	greater than 100
SO_2	greater than 100
VOC	greater than 100
CO	greater than 100
NO_x	less than 100

Note: PTE modified by the source

(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 Operating Permit No. T113-6491-00004, issued on July 5, 2006 and modified by the source.

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

On August 11, 2006 IDEM, issued a letter to the Indiana Cast Metal Association stating that IDEM had been made aware of certain previously unknown or unidentified carbon monoxide (CO) emissions, which are generated by pouring, cooling and shakeout operations at foundries. The letter offered an opportunity (consistent with IDEM's Self-Disclosure and Environmental Audit Policy) to the foundry facilities to identify and disclose potential violations related to CO emissions from pouring, cooling and shakeout operations. The letter also stated that IDEM would not seek either gravity -based or economic benefit of non-compliance based civil penalties against such sources. After December 31, 2007, IDEM would resume its normal compliance and enforcement activities related to the foundry sector.

Dalton Corporation, Kendallville Manufacturing Facility evaluated CO emissions from its Pouring, Cooling and Shakeout (PCS) operations at the source and submitted an application on December 18, 2007 to IDEM which indicated that the Pouring, Cooling and Shakeout operations from the Osborn Line are subject to the requirements of 326 IAC 2-2 (PSD), because these PCS operations were constructed in the year 1984 which is after August 1977, the applicability date for PSD and the increase in CO emissions from the project exceeded the significant levels for PSD. The remaining PCS operations at the source were constructed before the effective date of the PSD regulation and were not modified after the effective date of the PSD rule; therefore 326 IAC 2-2 (PSD) requirements are not applicable to PCS operations.

Through this modification:

(a) the CO emissions from the Pouring, Cooling and Shakeout operations at the Osborn Line will be reviewed pursuant to 326 IAC 2-2 (PSD), and

(b) the existing operating conditions of the Pouring, Cooling and Shakeout operations of the Osborn Line in the Part 70 Operating Permit will be modified

<u>Osborn Line</u>

(1) One (1) Osborn Pouring/Casting Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

(2) One (1) Osborn Cooling Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

(3) One (1) Osborn Shakeout Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

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	greater than 100
PM10	greater than 100
SO_2	less than 100
VOC	greater than 100
CO	greater than 100
NO_x	less than 100

The modification is subject to PSD review for CO emissions from Pouring, Cooling and Shakeout operations because the uncontrolled CO emissions from pouring, cooling and shakeout operations at Osborn Line exceeds one hundred (100) tons per year. Therefore, this source modification shall be processed as PSD/Significant Source Modification pursuant to 326 IAC 2-7-10.5(f)(1) and (7). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because modifying the existing operating conditions of the Pouring, Cooling and Shakeout operations of the Osborn Line in the Part 70 Operating Permit requires a case-by-case determination of an emission limitation in Part 70 Operating Permit.

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 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
Osborn Pouring	306.6	225.6	2.19	15.33	197.1	1.1
Osborn Cooling	153.3	153.3	0	75.23	315.36	0
Osborn Shakeout	24.18	16.92	0	131.4	144.54	0
Total for Modification	484.1	395.8	2.19	221.96	657	1.1
Significant Level or Major Source Threshold	25	15	40	40	100	40

Note: The PTE of these emission units were greater than the PSD Significant levels, however on November 20, 2003, the Marion County Superior Court ruled that these emission units are not required to undergo PSD review for PM, PM10 and VOC.

This modification to an existing major stationary source is major because the CO emissions increase is more than the PSD significant level. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do apply.

Federal Rule Applicability Determination

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

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

(c) 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)
Osborn Pouring Line (CO)	N	N	197.1	197.1	100	N	N
Osborn Cooling Line (CO)	N	N	315.36	315.36	100	N	N
Osborn Shakeout Line (CO)	N	N	144.54	144.54	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to the Osborn Pouring, Cooling and Shakeout operations 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 2-2-3 (PSD BACT: Control Technology Review Requirements)
Pursuant to PSD/SSM 113-25708-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the following is determined as Best Available Control Technology (BACT) for carbon monoxide (CO) for the proposed Osborn Line Pouring, Cooling and shakeout units.

(1) Pouring: Emission limitation of 1.8 pounds of CO per ton iron produced.

(2) Cooling: Emission limitation of 2.88 pounds of CO per ton iron produced.

(3) Shakeout: Emission limitation of 1.32 pounds of CO per ton iron produced.

326 IAC 2-2-4 (Air Quality Analysis Requirements)
Section (4)(a) of this rule, requires that the PSD application shall contain an analysis of ambient air quality in the area that the major stationary source would affect for pollutants that are emitted at major levels or significant amount. Dalton Corporation, Kendallville Manufacturing Facility has submitted air quality analysis, which has been evaluated by IDEM, OAQ.

NAAQS modeling for the appropriate time-averaging periods for CO was conducted and compared to the respective NAAQs limit. OAQ modeling results are shown in Table 5. All maximum-modeled concentrations were compared to the respective NAAQS limit. All maximum-modeled concentrations during the five years were below the NAAQS limits and further modeling was not required.

326 IAC 2-2-5 (Air Quality Impact Requirements)
326 IAC 2-2-5(e)(1) of this rule, requires that the air quality impact analysis required by this section shall be conducted in accordance with the following provisions:

(1) Any estimates of ambient air concentrations used in the demonstration processes required by this section shall be based upon the applicable air quality models, data bases,

and other requirements specified in 40 CFR Part 51, Appendix W (Requirements for Preparation, Adoption, and Submittal of Implementation Plans, Guideline on Air Quality Models)*.

(2) Where an air quality impact model specified in the guidelines cited in subdivision (1) is inappropriate, a model may be modified or another model substituted provided that all applicable guidelines are satisfied.

(3) Modifications or substitution of any model may only be done in accordance with guideline documents and with written approval from U.S. EPA and shall be subject to public comment procedures set forth in 326 IAC 2-1.1-6.

Economic Growth

The purpose of the growth analysis is to quantify project associated growth and estimate the air quality impacts from this growth either quantitatively or qualitatively.

No new construction is part of this application. No commercial growth is anticipated to occur. Since the area is predominately rural, it is not expected the growth impacts will cause a violation of the NAAQS.

Soils and Vegetation Analysis

A list of soil types present in the general area was determined. Soil types include the following: Sandy and Loamy Lacustrine deposits and Eolian sand, Alluvial and Outwash deposits, Eolian sand deposits.

Due to the agricultural nature of the land, crops in the Noble County area consist mainly of corn, sorghum, wheat, soybeans, and oats (2002 Agricultural Census for Noble County). The maximum modeled concentrations for Dalton are well below the threshold limits necessary to have adverse impacts on the surrounding vegetation such as autumn bent, nimblewill, barnyard grass, bishopscap and horsetail, and milkweed (Flora of Indiana – Charles Deam). Livestock in Noble County consist mainly of hogs, cattle, and sheep (2002 Agricultural Census for Noble County) and will not be adversely impacted from the facility. Trees in the area are mainly hardwoods. These are hardy trees and no significant adverse impacts are expected due to modeled concentrations.

Federal and State Endangered Species Analysis

Federal and state endangered or threatened species are listed by the U.S. Fish and Wildlife Service; Division of Endangered Species for Indiana and includes 5 amphibians, 27 birds, 10 fishes, 7 mammals, 15 mollusks, and 15 reptiles. Of the federal and state endangered species on the list, 2 amphibians, 7 reptiles, 16 mollusks, 7 fish, 18 birds, and 4 mammals have habitat within Noble County. The mollusks, fish, amphibians and certain species of birds and mammals are found along rivers and lakes while the other species of birds and mammals are found in forested areas. The facility is not expected to have any additional adverse effects on the habitats of the species than what has already occurred from the industrial, farming, and residential activities in the area.

Federal and state endangered or threatened plants are listed by the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana. They list 22 state significant species of plants. At this time no federally endangered plant species are found in Noble County. The endangered plants do not thrive in industrialized and residential areas. The facility is not expected to adversely affect any plant on the endangered species list.

326 IAC 2-2-7 (Additional Analysis, Requirements)
326 IAC 2-2-7(a) requires an analysis of the impairment to visibility, soils and vegetation. An analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the source.

The results of the additional impact analysis conclude the operation of the facility will have no significant impact on economic growth, soils or vegetation in the immediate vicinity or on any Class I area. CO is not a pollutant that affects visibility, the visibility analysis was not necessary for this application.

326IAC 2-2-10 (Source Information)
The Permittee has submitted all information necessary to perform analysis or make the determination required under this rule.

326 IAC 2-2-12 (Permit Rescission)
The permit issued under this rule shall remain in effect unless and until it is rescinded, modified, revoked, or it expires in accordance with 326 IAC 2-1.1.-9.5 or section 8 of this rule.

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.

There are no Compliance Determination and monitoring requirements applicable to this modification at this time.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 113-6491-00004. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1 New Condition D.3.1 - PSD BACT Requirements has been included in the permit. Subsequently, all other conditions and references to the conditions have been renumbered in the permit. A typo in Condition D.3.6 (now D.3.7) has been corrected. Vent #5 has been added to the Osborn cooling Line in the permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

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(2) One (1) Osborn Cooling Line, constructed in 1984, with nominal throughputs of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.

Emissions from the Osborn Cooling Line are uncontrolled, and exhaust to Vent #4, **Vent 5,** Vent #21, and Vent #70.

(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 PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to PSD/SSM 113-25708-00004 and the requirements of 326 IAC 2-2-3 (PSD), the Best Available Control Technology (BACT), the Permittee shall comply with the following:

(1) Pouring: Emission limitation of 1.8 pounds of CO per ton iron produced.

(2) Cooling: Emission limitation of 2.88 pounds of CO per ton iron produced.

(3) Shakeout: Emission limitation of 1.32 pounds of CO per ton iron produced.

D.3.~~1~~**2** Particulate (PM) [326 IAC 6-3-2]

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(j) To demonstrate compliance with Condition D.3.~~1~~**2** - Particulate **(PM)**, the combined emissions from Stacks A, B, and C, based on the test results, shall not exceed 61.77 pounds per hour.

D.3.~~2~~**3** Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]

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D.3.~~3~~**4** Emission Control [326 IAC 2-7-5(1)]

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D.3.~~4~~**5** Operating Requirement

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D.3.~~5~~**6** Notification Requirement

Pursuant to Agreed Order No. 2001-11054-A Paragraph 8, the Permittee shall notify IDEM's

current Office of Air Quality inspector by phone and in writing of every event of deviation from the requirements under 326 IAC 6-4 as applicable to emissions from Scrubber B and visible emissions as applicable to emissions from scrubber B and parametric monitoring requirements under Conditions ~~D.3.7 and D.3.8~~ **D.3.8 and D.3.9** as applicable to emissions from Scrubber B, and of each observation of visible dust lasting longer than sixty seconds and leaving the property boundary at or near ground level as emissions from Scrubber B, by phone at (317)233-8437 and in writing via fax at (317) 233-6865 within twenty-four hours of the event or observation or by the next business day.

D.3.~~6~~**7** Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

To demonstrate compliance with Condition 3.~~1~~**2** - Particulate, within 365 days after the issuance date of this Part 70 permit, the Permittee shall perform PM testing on Wet Scrubbers A, B, and C using methods as approved by the Commissioner.

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During the PM tests, the Permittee shall monitor and record those parameters required to be measured and monitored by Condition D.3.~~6~~**9** - Scrubber Parametric Monitoring.

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D.3.~~7~~**8** Visible Emissions Notations

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D.3.~~8~~**9** Scrubber Parametric Monitoring

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D.3.~~9~~**10** Scrubber Failure Detection

.....

D.3.~~10~~**11** Record Keeping Requirements

(a) To document compliance with Condition D.3.~~7~~ **8** - Visible Emissions Notations, the Permittee shall maintain records of the visible emission notations of the:

.....

(b) To document compliance with Condition D.3.~~8~~ **9** - Scrubber Parametric Monitoring, the Permittee shall maintain records of the pressure drop and flow rate readings of the following wet scrubbers and make such records available upon request to IDEM, OAQ:

.....

Other Changes

Upon further review IDEM, OAQ has made the following changes to the Title V permit T113-6491-00004. (deleted language appears as ~~strikout~~ and the new language **bolded**):

Change 1 IDEM, OAQ has deleted the "responsible official" listing from Condition A.1 of the permit in order to minimize the administrative maintenance associated with this item and the mailing address has been changed every where in the permit.

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

The Permittee owns and operates a stationary gray iron foundry.

~~Responsible Official: Plant Manager~~

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Change 2 For clarification purposes, Condition B.20 - Operational Flexibility has been revised.

B.21 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 sentence in Condition C.3 (Open Burning) have 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.~~

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Change 4 IDEM has updated the General Record Keeping 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 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 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 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" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(~~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.2.9, D.4.7, D.5.12 and D.6.9 have been revised.

D.2.9 Record Keeping Requirements

~~(a) To document compliance with Condition D.2.5 - Visible Emissions Notations, the Permittee shall maintain records of the once per day visible emission notations of the Wet Scrubber M exhaust (Stack M) and make such records available upon request to IDEM, OAQ.~~

(a) To document compliance with Condition D.2.5 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the wet scrubber M 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).

.....

~~(c) To document compliance with Condition D.2.7 - Scrubber Parametric Monitoring, the Permittee shall maintain records of the once per day pressure drop and flow rate readings of the Wet Scrubber M and make such records available upon request to IDEM, OAQ.~~

(c) To document compliance with Condition D.2.7– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop and flow rate reading across the Wet Scrubber M. The Permittee shall include in its daily record when the pressure drop and flow rate reading are not taken and the reason for the lack of pressure drop and flow rate readings, (e.g. the process did not operate that day).

.....

D.4.7 Record Keeping Requirements

~~(a) To document compliance with Condition D.4.4 - Visible Emissions Notations, the Permittee shall maintain records of the once per day visible emission notations of the Baghouse P exhaust (Stack P) and make such records available upon request to IDEM, OAQ.~~

(a) To document compliance with Condition D.4.4 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the baghouse P 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).

~~(b) To document compliance with Condition D.4.5 - Baghouse Parametric Monitoring, the Permittee shall maintain records of the once per day pressure drop and flow rate readings of the Baghouse P and make such records available upon request to IDEM, OAQ.~~

(b) To document compliance with Condition D.4.5– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across baghouse P. 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).

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D.5.12 Record Keeping Requirements

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~~(d) To document compliance with Condition D.5.8 - Visible Emissions Notations, the Permittee shall maintain records of the once per day visible emission notations of the Bin Vent exhausts, and make such records available upon request to IDEM, OAQ.~~

(d) To document compliance with Condition D.5.8 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the Bin Vent 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.5.10 - Scrubber Parametric Monitoring, the Permittee shall maintain records of the once per day pressure drop, flow rate and pH readings of the Acid Scrubber T and make such records available upon request to IDEM, OAQ.~~

(e) To document compliance with Condition D.5.10– Scrubber Parametric Monitoring, the Permittee shall maintain the daily records of the pH, pressure drop and flow rate reading across the Acid Scrubber T. 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).

.....

D.6.9 Record Keeping Requirements

~~(a) To document compliance with Condition D.6.6 - Visible Emissions Notations, the Permittee shall maintain records of the once per day visible emission notations of the following:~~

~~(1) Baghouse E exhaust (Stack E),~~

~~(2) Baghouse F exhaust (Stack F),~~

~~(3) Baghouse G exhaust (Stack G),~~

~~(4) Baghouse H exhaust (Stack H) ,~~

~~(5) Baghouse I exhaust (Stack I), and~~

~~(6) Baghouse O exhaust (Stack O)~~

~~and make such records available upon request to IDEM, OAQ:~~

(a) To document compliance with Condition D.6.6 – Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the Baghouse E, Baghouse F, Baghouse G, Baghouse H, Baghouse I and Baghouse O 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.6.7 - Baghouse Parametric Monitoring, the Permittee shall maintain records of the once per day pressure readings of the following baghouses and make such records available upon request to IDEM, OAQ:~~

~~(1) Baghouse E,~~

~~(2) Baghouse F,~~

~~(3) Baghouse G,~~

~~(4) Baghouse H,~~

~~(5) Baghouse I, and~~

~~(6) Baghouse O.~~

(b) To document compliance with Condition D.6.7– Baghouse Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across Baghouse E, Baghouse F, Baghouse G, Baghouse H, Baghouse I and Baghouse O. 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).

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Change 6 None applicable conditions have been deleted from Section 7.

~~**Compliance Determination Requirements**~~
~~None~~

~~**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**~~
~~None~~

~~**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**~~
~~None~~

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.~~

~~(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 when scrubbing with fresh acid solution; 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 when scrubbing with fresh acid solution.~~

~~(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.~~

~~(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.~~

~~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.~~

~~(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnaces, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, 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 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.~~

~~§ 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.~~

~~(4) For electric arc and electric induction metal melting furnaces, sample only when metal is being melted.~~

~~(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.~~

~~(4) For electric arc and electric induction metal melting furnaces, sample only when metal is being melted.~~

~~(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.~~

~~(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.~~

~~(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. The Method 18 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. The adsorbent tube approach, as described in 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) 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 4 of this section:~~

$$\%\ \text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad (Eq.\ 4)$$

~~Where:~~

~~E_i = Mass emissions rate of TEA at control device inlet, 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 3 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 4 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 source using Equation 5 of this section:~~

$$C_{released} = C_i \times \left(1 - \frac{\%\ \text{reduction}}{100}\right) \qquad (Eq.\ 5)$$

~~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.~~

~~(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 3-hour average combustion zone temperature for each 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 3-hour average scrubbing liquid 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.~~

~~(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).~~

~~§ 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.~~

~~§ 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).~~

~~(g) 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).~~

~~§ 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 maximum 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 maximum 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 maximum 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.~~

~~(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 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).~~

~~§ 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 (PMP) 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.~~

~~(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.~~

~~(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.~~

~~§ 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.~~

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 113-25708-00004 and Significant Permit Modification No. 113-25804-00004. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Appendix A: Emissions Calculations

Emission Summary

Source Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Location: 200 West Ohio Street, Kendallville, IN 46755
Permit Number: SPM113-25804-00004
Permit Reviewer: Josiah Balogun
Date: 28-Dec-07

Uncontrolled Potential Emissions

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	NOx (tons/yr)	CO (tons/yr)	HAPs (tons/yr)
Emission Unit							
Osborn Line							
Osborn Pouring	306.6	225.57	2.19	15.33	1.1	197.1	2.36
Osborn Cooling	153.3	153.3	0	75.23	0	315.36	0
Osborn Shakeout	350.4	245.28	0	131.4	0	144.54	1.79
Total Emissions	810.3	624.2	2.19	221.96	1.1	657	4.15

Potential Emissions

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	NOx (tons/yr)	CO (tons/yr)	HAPs (tons/yr)
Emission Unit							
Osborn Line							
Osborn Pouring	306.6	225.57	2.19	15.33	1.1	197.1	2.36
Osborn Cooling	153.3	153.3	0	75.23	0	315.36	0
Osborn Shakeout	24.18	16.92	0	131.4	0	144.54	1.79
Total Emissions	484.1	395.8	2.19	221.96	1.1	657.0	4.15

The PTE of these emission units are greater than the PSD Significant levels, on November 20, 2003, the Marion County Superior Court ruled that these emission units are not required to undergo PSD review. However, this Court decision does not preclude these emission units from PSD review for future modifications.

Appendix A: Emission Calculations
Osborn Pouring

Company Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Location: 200 West Ohio Street, Kendallville, IN 46755
Permit Number SPM113-25804-00004
Permit Reviewer: Josiah Balogun
Date 28-Dec-07

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Osborn Pouring	25	PM	2.80	306.60	306.60	none	none
		PM-10	2.06	225.57	225.57	none	none
		SO2	0.02	2.19	2.19	none	none
		NOx	0.01	1.10	1.10	none	none
		VOC	0.14	15.33	15.33	none	none
		CO	1.80	197.10	197.10	none	none
		chromium	0.0016	0.18	0.18		
		cobalt	0.00013	0.01	0.01		
		nickel	0.00281	0.31	0.31		
		arsenic	0.00055	0.06	0.06		
		cadmium	0.00025	0.03	0.03		
		selenium	0.00004	0.00	0.00		
		Lead	0.01617	1.77	1.77		

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# 3-04-003-20

Appendix A: Emission Calculations
Osborn Cooling

Company Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Location: 200 West Ohio Street, Kendallville, IN 46755
Permit Number SPM113-25804-00004
Permit Reviewer: Josiah Balogun
Date 28-Dec-07

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Osborn Cooling	25	PM	1.4	153.30	153.30	none	none
		PM-10	1.4	153.30	153.30	none	none
		SO2	0	0.00	0.00	none	none
		NOx	0	0.00	0.00	none	none
		VOC	0.687	75.23	75.23	none	none
		CO	2.88	315.36	315.36	none	none
		Lead	0	0.00	0.00	none	none

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# 3-04-003-25

Appendix A: Emission Calculations
Osborn Shakeout

Company Name: Dalton Corporation, Kendallville Manufacturing Facility
Source Location: 200 West Ohio Street, Kendallville, IN 46755
Permit Number SPM113-25804-00004
Permit Reviewer: Josiah Balogun
Date 28-Dec-07

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton produced)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Osborn Shakeout	25	PM	3.20	350.40	24.18	Wet scrubber	93.10%
		PM-10	2.24	245.28	16.92	Wet scrubber	93.10%
		SO2	0.00	0.00	0.00	none	none
		NOx	0.00	0.00	0.00	none	none
		VOC	1.20	131.40	131.40	none	none
		CO	1.32	144.54	144.54	none	none
		chromium	0.00122	0.13	0.13		
		cobalt	0.0001	0.01	0.01		
		nickel	0.00214	0.23	0.23		
		arsenic	0.00042	0.05	0.05		
		cadmium	0.00019	0.02	0.02		
		selenium	0.00003	0.00	0.00		
		Lead	0.01232	1.35	1.35		

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 AP 42 Ch 12.10 SCC# 3-04-003-31

Indiana Department of Environmental Management
Office of Air Quality

Appendix B – BACT Analyses
Technical Support Document (TSD)
Prevention of Significant Deterioration (PSD)
Significant Source Modification (SSM) of a Part 70 Source
Significant Permit Modification (SPM) of Part 70 Operating Permit

Source Background and Description

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, IN 46755
County:	Noble
SIC Code:	3321
Operation Permit No.:	T 113-6491-00004
Operation Permit Issuance Date:	July 5, 2006
Significant Source Modification No.:	113-25708-00004
Significant Permit Modification No.:	113-25804-00004
Permit Reviewer:	Josiah Balogun

Proposed Modification

On August 11, 2006 IDEM notified the foundry facilities in Indiana that it must evaluate its Potential to Emit CO which is generated by the pouring, cooling and shakeout operations and determine whether the requirements of PSD rules may apply as a result of the CO PTE. If it is determined that a PSD permit is required for past modifications for the facility, the source shall submit a complete PSD application for the modification(s) by December 31, 2007.

Dalton Corporation, Kendallville Manufacturing Facility located at 200 West Ohio Street, Kendallville, Indiana 46755 determined that past modification at Osborn Line was subject to PSD requirements, and therefore, submitted a PSD application to IDEM on December 18, 2007.

Requirement for Best Available Control Technology (BACT)

326 IAC 2-2 requires a best available control technology (BACT) review to be performed on the proposed modification because the proposed expansion has potential to emit of Carbon monoxide (CO) emissions greater than 100 tons per year above the significant level of CO.

Emission Units Subject to BACT Analysis for CO:

The following modified emission units have the potential to emit carbon monoxide (CO); therefore, Best Available Control Technology analyses for CO were performed for these units:

<u>Osborn Line</u>

(1) One (1) Osborn Pouring/Casting Line, constructed in 1984, with a nominal throughput of

25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Emissions from the Osborn Pouring/Casting Line are uncontrolled, and exhaust to Vent #30 and Vent #31.

(2) One (1) Osborn Cooling Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Emissions from the Osborn Cooling Line are uncontrolled, and exhaust to Vent #4, Vent #5, Vent #21 and Vent #70.

(3) One (1) Osborn Shakeout Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Particulate emissions from the Osborn Shakeout Line are controlled by Wet Scrubber B and Wet Scrubber C, and exhaust to Stack B and Stack C.

Requirement for CO BACT

The pouring, cooling and shakeout operations at the Osborn Line has the total potential to emit carbon monoxide (CO) of 657 tons per year; therefore, Best Available Control Technology analyses for CO were performed for pouring, cooling and shakeout operations at the Osborn Line.

See Appendix A – Emission Calculations – of this TSD for detailed Potential to Emit (PTE) calculations

Summary of the Best Available Control Technology (BACT) Process

BACT is a mass emission limitation based on the maximum degree of pollution reduction of emissions, which is achievable on a case-by-case basis. BACT analysis takes into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, work practices, and operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution, thereby protecting public health and the environment.

Federal guidance on BACT requires an evaluation that follows a “top down” process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by regulation or permit, or controls achieved in practice. The highest level of control is then evaluated for technical feasibility.

The five (5) basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies, and controls applied to similar source categories. There is no requirement in the State or Federal regulations to require innovative control to be used as BACT.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls. Innovative control means a control that has not been demonstrated in a commercial application on similar units. Innovative controls are normally given a waiver from the BACT requirements due to the uncertainty of actual control efficiency. Based on this, the OAQ will not evaluate or require any innovative controls for this BACT analysis. Only available and proven control technologies are evaluated. A control technology is considered available when there are sufficient data indicating that the technology results in a reduction in emissions of regulated pollutants.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. The ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that the evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate the Most Effective Controls and Document the Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The permitting agency has to choose the most stringent limit as BACT unless the applicant demonstrates in a convincing manner why that limit is not feasible. The final BACT determination would be the technology with the most stringent corresponding limit that is economically feasible. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

The Office of Air Quality (OAQ) makes BACT determinations by following the five steps identified above.

Carbon Monoxide (CO) BACT – Osborn Line

Step 1: Identify Potential Control Technologies

Emissions of carbon monoxide (CO) are generally controlled by oxidation. Combustion control technologies include:

(a) Recuperative thermal oxidation;

(b) Regenerative thermal oxidation;

(c) Catalytic oxidation;

(d) No control.

Step 2: Eliminate Technically Infeasible Options

The RACT/BACT/LAER (RBLC) Clearinghouse and review of other New Source Review (NSR) permits reveal that similar foundries sources do not use any control devise to control carbon monoxide emissions from the pouring, cooling and shakeout units.

Thermal Oxidizers

The thermal oxidizer is a nozzle-stabilized flame maintained by a combination of auxiliary fuel, waste gas compounds, and supplemental air added when necessary. This technology is typically applied for destruction of organic vapors, nevertheless it is also considered as a technology for controlling CO emissions. Upon passing through the flame, the waste gas from PCS operations containing CO is heated from its inlet temperature to its ignition temperature (It is the temperature at which the combustion reaction rate (and consequently the energy production rate) exceeds the rate of heat losses, thereby raising the temperature of the gases to some higher value). Thus, any CO/air mixture will ignite if its temperature is raised to a sufficiently high level. The CO-containing mixture ignites at some temperature between the preheat temperature and the reaction temperature. The ignition occurs at some point during the heating of a waste stream as it passes through the nozzle-stabilized flame regardless of its concentration. The mixture continues to react as it flows through the combustion chamber.

The required level of CO destruction of the waste gas that must be achieved within the time that it spends in the thermal combustion chamber dictates the reactor temperature. The shorter the residence time, the higher the reactor temperature must be. Most thermal units are designed to provide no more than 1 second of residence time to the waste gas with typical temperatures of 1,200 to 2,000^{o}F. Once the unit is designed and built, the residence time is not easily changed, so that the required reaction temperature becomes a function of the particular gaseous species and the desired level of control.

(a) Recuperative Thermal Oxidizer

The Recuperative Thermal Oxidizer is comprised of the combustion chamber and heat exchanger. After leaving the combustion chamber, the exhaust gas enters a heat exchanger where it transfers heat to the waste gas through conduction. The waste gas is thus preheated.

Considerable fuel savings can be achieved by using the exhaust gas to preheat the incoming waste gas, combustion air, or both via a heat exchanger. These heat exchangers can recover up to 70% of the energy (enthalpy) in the product gas. Most heat exchangers are not designed to withstand high temperatures, so that most of the energy needed to reach ignition is supplied by the combustion of fuel in the combustion chamber and only moderate preheat temperatures are sought in practice (<1200°F).

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a thermal oxidizer is a technically feasible option for the Osborn Line at this source.

Indiana Department of Environmental Management
Office of Air Quality

Appendix B – BACT Analyses
Technical Support Document (TSD)
Prevention of Significant Deterioration (PSD)
Significant Source Modification (SSM) of a Part 70 Source
Significant Permit Modification (SPM) of Part 70 Operating Permit

Source Background and Description

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, IN 46755
County:	Noble
SIC Code:	3321
Operation Permit No.:	T 113-6491-00004
Operation Permit Issuance Date:	July 5, 2006
Significant Source Modification No.:	113-25708-00004
Significant Permit Modification No.:	113-25804-00004
Permit Reviewer:	Josiah Balogun

Proposed Modification

On August 11, 2006 IDEM notified the foundry facilities in Indiana that it must evaluate its Potential to Emit CO which is generated by the pouring, cooling and shakeout operations and determine whether the requirements of PSD rules may apply as a result of the CO PTE. If it is determined that a PSD permit is required for past modifications for the facility, the source shall submit a complete PSD application for the modification(s) by December 31, 2007.

Dalton Corporation, Kendallville Manufacturing Facility located at 200 West Ohio Street, Kendallville, Indiana 46755 determined that past modification at Osborn Line was subject to PSD requirements, and therefore, submitted a PSD application to IDEM on December 18, 2007.

Requirement for Best Available Control Technology (BACT)

326 IAC 2-2 requires a best available control technology (BACT) review to be performed on the proposed modification because the proposed expansion has potential to emit of Carbon monoxide (CO) emissions greater than 100 tons per year above the significant level of CO.

Emission Units Subject to BACT Analysis for CO:

The following modified emission units have the potential to emit carbon monoxide (CO); therefore, Best Available Control Technology analyses for CO were performed for these units:

<u>Osborn Line</u>

(1) One (1) Osborn Pouring/Casting Line, constructed in 1984, with a nominal throughput of

25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Emissions from the Osborn Pouring/Casting Line are uncontrolled, and exhaust to Vent #30 and Vent #31.

(2) One (1) Osborn Cooling Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Emissions from the Osborn Cooling Line are uncontrolled, and exhaust to Vent #4, Vent #5, Vent #21 and Vent #70.

(3) One (1) Osborn Shakeout Line, constructed in 1984, with a nominal throughput of 25.0 tons of metal per hour and 160 tons of sand molds and cores per hour.
Particulate emissions from the Osborn Shakeout Line are controlled by Wet Scrubber B and Wet Scrubber C, and exhaust to Stack B and Stack C.

Requirement for CO BACT

The pouring, cooling and shakeout operations at the Osborn Line has the total potential to emit carbon monoxide (CO) of 657 tons per year; therefore, Best Available Control Technology analyses for CO were performed for pouring, cooling and shakeout operations at the Osborn Line.

See Appendix A – Emission Calculations – of this TSD for detailed Potential to Emit (PTE) calculations

Summary of the Best Available Control Technology (BACT) Process

BACT is a mass emission limitation based on the maximum degree of pollution reduction of emissions, which is achievable on a case-by-case basis. BACT analysis takes into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, work practices, and operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution, thereby protecting public health and the environment.

Federal guidance on BACT requires an evaluation that follows a “top down” process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by regulation or permit, or controls achieved in practice. The highest level of control is then evaluated for technical feasibility.

The five (5) basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies, and controls applied to similar source categories. There is no requirement in the State or Federal regulations to require innovative control to be used as BACT.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls. Innovative control means a control that has not been demonstrated in a commercial application on similar units. Innovative controls are normally given a waiver from the BACT requirements due to the uncertainty of actual control efficiency. Based on this, the OAQ will not evaluate or require any innovative controls for this BACT analysis. Only available and proven control technologies are evaluated. A control technology is considered available when there are sufficient data indicating that the technology results in a reduction in emissions of regulated pollutants.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. The ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that the evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate the Most Effective Controls and Document the Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The permitting agency has to choose the most stringent limit as BACT unless the applicant demonstrates in a convincing manner why that limit is not feasible. The final BACT determination would be the technology with the most stringent corresponding limit that is economically feasible. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

The Office of Air Quality (OAQ) makes BACT determinations by following the five steps identified above.

Carbon Monoxide (CO) BACT – Osborn Line

Step 1: Identify Potential Control Technologies

Emissions of carbon monoxide (CO) are generally controlled by oxidation. Combustion control technologies include:

(a) Recuperative thermal oxidation;

(b) Regenerative thermal oxidation;

(c) Catalytic oxidation;

(d) No control.

Step 2: Eliminate Technically Infeasible Options

The RACT/BACT/LAER (RBLC) Clearinghouse and review of other New Source Review (NSR) permits reveal that similar foundries sources do not use any control devise to control carbon monoxide emissions from the pouring, cooling and shakeout units.

Thermal Oxidizers

The thermal oxidizer is a nozzle-stabilized flame maintained by a combination of auxiliary fuel, waste gas compounds, and supplemental air added when necessary. This technology is typically applied for destruction of organic vapors, nevertheless it is also considered as a technology for controlling CO emissions. Upon passing through the flame, the waste gas from PCS operations containing CO is heated from its inlet temperature to its ignition temperature (It is the temperature at which the combustion reaction rate (and consequently the energy production rate) exceeds the rate of heat losses, thereby raising the temperature of the gases to some higher value). Thus, any CO/air mixture will ignite if its temperature is raised to a sufficiently high level. The CO-containing mixture ignites at some temperature between the preheat temperature and the reaction temperature. The ignition occurs at some point during the heating of a waste stream as it passes through the nozzle-stabilized flame regardless of its concentration. The mixture continues to react as it flows through the combustion chamber.

The required level of CO destruction of the waste gas that must be achieved within the time that it spends in the thermal combustion chamber dictates the reactor temperature. The shorter the residence time, the higher the reactor temperature must be. Most thermal units are designed to provide no more than 1 second of residence time to the waste gas with typical temperatures of 1,200 to 2,000^{o}F. Once the unit is designed and built, the residence time is not easily changed, so that the required reaction temperature becomes a function of the particular gaseous species and the desired level of control.

(a) Recuperative Thermal Oxidizer

The Recuperative Thermal Oxidizer is comprised of the combustion chamber and heat exchanger. After leaving the combustion chamber, the exhaust gas enters a heat exchanger where it transfers heat to the waste gas through conduction. The waste gas is thus preheated.

Considerable fuel savings can be achieved by using the exhaust gas to preheat the incoming waste gas, combustion air, or both via a heat exchanger. These heat exchangers can recover up to 70% of the energy (enthalpy) in the product gas. Most heat exchangers are not designed to withstand high temperatures, so that most of the energy needed to reach ignition is supplied by the combustion of fuel in the combustion chamber and only moderate preheat temperatures are sought in practice (<1200°F).

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a thermal oxidizer is a technically feasible option for the Osborn Line at this source.

(b) Regenerative Thermal Oxidizer

Regenerative Thermal Oxidizer consists of direct contact heat exchangers constructed of a ceramic material that can tolerate the high temperatures needed to achieve ignition of the waste stream.

The inlet gas first passes through a hot ceramic bed thereby heating the stream (and cooling the bed) to its ignition temperature. The hot gases then react (releasing energy) in the combustion chamber and while passing through another ceramic bed, thereby heating it to the combustion chamber outlet temperature. The process flows are then switched, now feeding the inlet stream to the hot bed. This cyclic process affords very high energy recovery (up to 95%). The higher capital costs associated with these high-performance heat exchangers and combustion chambers may be offset by the increased auxiliary fuel savings to make such a system economical.

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a thermal oxidizer is a technically feasible option for the Osborn Line at this source.

(c) Catalytic Oxidizers

Catalytic oxidation is also a widely used control technology to control pollutants where the waste gas is passed through a flame area and then through a catalyst bed for complete combustion of the waste in the gas. This technology is typically applied for destruction of organic vapors, nevertheless it is considered as a technology for controlling CO emissions. A catalyst is an element or compound that speeds up a reaction at lower temperatures compared to thermal oxidation without undergoing change itself. Catalytic oxidizers operate at 650°F to 1000°F and approximately require 1.5 to 2.0 ft^3 of catalyst per 1000 standard ft^3 per gas flow rate.

Application of catalytic oxidation to control CO emissions from the Osborn Line PCS operation poses a major problem which is the failure of the catalyst. Emissions from PCS operation contain significant amount of particulates and iron oxides. These particulates and iron oxides can poison the catalyst resulting in the failure of catalytic oxidation. In addition, the gas stream from the PCS operation comes out with at high temperatures of about 1500 ° F which can speed up the poisoning of the catalyst. Additionally, the auto ignition temperature of CO is about 1150 - 1250°F and the presence of a catalyst would not provide any additional CO reduction.

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a catalytic oxidizer is not a technically feasible option for the Osborn Line at this source.

The emission streams from the Osborn Line have significant levels of particulate matter. Therefore, the exhaust intended for the oxidizer would need to be preconditioned with a particulate matter control device (baghouse). A high level of control efficiency is required for introduction to an oxidizer. Therefore, the further evaluation of thermal oxidizer controls will necessarily include preconditioning of the waste gas by a baghouse control.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

(1) Recuperative Thermal Oxidizer - 98 % destruction efficiency

(2) Regenerative Thermal Oxidizer - 98 % destruction efficiency

Step 4: Evaluate the Most Effective Controls and Document the Results

Average Cost Effectiveness for the Recuperative Thermal Oxidizer = $25,527

Average Cost Effectiveness for the Regenerative Thermal Oxidizer = $11,700

Detailed estimates are contained in Appendix D. The results of these assessment yields dollar-per-ton controlled cost above the levels considered economically infeasible.

The following table lists the proposed CO BACT determination along with the existing CO BACT determinations for Osborn line pouring, cooling and shakeout operations. All data in the table is based on the information obtained from the permit application submitted by Dalton Corporation, Kendallville Manufacturing Facility, the U.S. EPA RACT/BACT/LAER Clearinghouse (RBLC), and electronic versions of permits available at the websites of other permitting agencies.

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
PROPOSAL BACT FOR OSBORN LINE			
Dalton Corporation, Kendallville Manufacturing Facility - ***Kendallville***, IN (Proposed permit 25708) Osborn Line (Pouring, Cooling and Shakeout) Capacity 25 tons/hr	Pouring 1.88 lb/ton Cooling 2.88 lb/ton and Shakeout 1.32 lb/ton	Proposed date, 2008	No Control
COMPARABLE BACT DETERMINATIONS (List in Top-Down Order by Control Efficiency)			
Thyssen Krupp Plant #1- WI - 0238 Pouring/Cooling	5.0 lb/ton metal	01/12/2006	No Control
Thyssen Krupp Plant #2- WI - 0237 Pouring/Cooling	5.0 lb/ton metal	12/05/2005	No Control
Waupaca Foundry, Inc plant 1 - WI - 0190 Pouring/Mold Cooling disa Line 4	5.0 lb/ton metal 35.0 lb/hr	06/11/02	No Control
Ardmore Foundry, Inc - OK - 0077 Pouring and Cooling	82.34 lb/hr	09/04/2001	No Control
Ardmore Foundry, Inc - OK - 0039 Pouring and Cooling	156.76 lb/hr	05/22/2000	No Control
Waupaca Foundry, Inc plant 3 - WI - 0160 Pouring/Mold Cooling P54 S68 Line 2	5.0 lb/ton metal 80.0 lb/hr	12/22/1999	No Control
Waupaca Foundry, Inc plant 3 - WI - 0155 Pouring/Mold Cooling P53 S68 Line 1	5.0 lb/ton metal 80.0 lb/hr from S68	12/23/1998	No Control

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
Aarrow Cast - WI - 0161 Pouring, Cooling and Shakeout P25 &P26,S22	5.0 lb/ton metal	10/01/1998	Sand System Optimization
Waupaca Foundry, Inc plant 1 - WI - 0179 disa Line 2 Pouring/Mold Cooling	5.0 lb/ton metal 40.0 lb/hr	07/01/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 7 Phase II	5.0 lb/ton iron 150.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 5 Phase II	5.0 lb/ton iron 125.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 6 & 8 Phase II	5.0 lb/ton iron 90.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process, Existing	5.0 lb/ton iron 125.0 lb/hr	02/04/1998	No Control
Thyssen Krupp Plant #1- WI - 0238 Shakeout	1.0 lb/ton metal	01/12/2006	No Control
Thyssen Krupp Plant #2 & #3- WI - 0239 Shakeout	1.0 lb/ton metal	01/12/2006	No Control
Thyssen Krupp Plant #2- WI - 0237 Shakeout	1.0 lb/ton metal	12/05/2005	No Control
Waupaca Foundry, Inc plant 1 - WI - 0190 Shakeout disa Line 4	1.0 lb/ton metal 14.0 lb/hr	06/11/2002	No Control
Ardmore Foundry, Inc - OK - 0077 Shakeout	26.7 lb/hr	09/04/2001	No Control
Waupaca Foundry, Inc plant 6 - TN - 0131 Phase I Mold Cooling & Shakeout Lines 1 & 2	35.0 lb/month (each line) 96.0 lb/hr (Each Line)	08/24/2001	No Control
Waupaca Foundry, Inc plant 6 - TN - 0131 Phase I Mold Cooling & Shakeout Lines 3 & 4	65.70 lb/month (each line) 180.0 lb/hr (Each Line)	08/24/2001	No Control

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
Waupaca Foundry, Inc - TN - 0063 Mold Cooling & Shakeout, Cast handling and Finishing	465.0 lb/hr	04/29/2000	Incineration System and Rereouting not Considered technically viable.
Ravenna Casting Center, Inc - MI - 0274 Molding, Shakeout	98.5 lb/hr 270 tons/yr	04/14/2000	Exhaust through Fabric filter Equivalent to 4.1 lb/ton of iron cast. Sand used limited to 500,000 ton/yr.
Waupaca Foundry, Inc Plant 3 - WI - 0160 Shakeout P60, S56 Line 2	0.1lb/ton metal 16.0 lb/hr from S56	12/22/1999	No Control
Waupaca Foundry, Inc Plant 3 - WI - 0160 Shakeout Line 1 P59, S53	0.1lb/ton metal 16.0 lb/hr	12/22/1999	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0184 P33B - S25 disa Line 3 Shakeout	1.0 lb/ton 10.0 lb/hr	05/27/1999	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0184 P33A - S25 disa Line 2 Shakeout	1.0 lb/ton 16.0 lb/hr	05/27/1999	No Control
Waupaca Foundry, Inc Plant 3 - WI - 0155 Shakeout P59, S53 - disa Line 1	1.0 lb/ton metal 16.0 lb/hr from S56	12/23/1998	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0179 DISA Line 3, Shakeout P33 B	1.0 lb/ton metal	07/01/1998	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0179 DISA Line 2, Shakeout P33	1.0 lb/ton metal	07/01/1998	No Control
Waupaca Foundry, Inc - IN - 0078 Shakeout Line 7 Phase II	1.0 lb/ton iron 3.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 1, Existing	1.0 lb/ton iron	02/04/1998	No Control
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 8, Phase II	1.0 lb/ton iron 18.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 6, Phase II	1.0 lb/ton iron 18.0 lb/hr	02/04/1998	No Control

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 5, Phase II	1.0 lb/ton iron 25.0 lb/hr	02/04/1998	No Control

The BACT limits proposed by Dalton Corporation, Kendallville Manufacturing Facility for pouring and mold cooling are 1.88 and 2.88, respectively. These limits combined are equal to 4.76 lb/ton, which is more stringent than the comparable combined lb/ton BACT limitations referenced in the table above. While it is clear that Dalton's proposed limit for shakeout of 1.32 lb/ton is not as stringent as the limits referenced above for Waupaca and Thyssen Krupp plants (1 lb/ton), the limit for Dalton is based on stack testing conducted at Dalton's Kendallville plant and more accurately reflect the normal emission rate from the shakeout operations at this plant. In addition, these other comparable BACT emission limitations are uncontrolled units, based on a determination by the permitting authority that controls are not feasible for these types of operations. Therefore, given that the proposed limit is not significantly higher than other comparable limits, and given that the materials produced at these facilities vary significantly, which affects the emission characteristic of the shakeout operations, it is reasonable to conclude that Dalton's proposed limit should be considered BACT for the Osborn Line.

Step 5: Select BACT

Recuperative Thermal Oxidizer and Regenerative Thermal Oxidizer combined with baghouse are not economically feasible due to high operating cost of these equipments.

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), IDEM has established the following as BACT for carbon monoxide (CO) for the Osborn Line pouring, cooling and shakeout operation.

The CO emissions from the Osborn Line Pouring, Cooling and shakeout units shall not exceed:

(1) Pouring: Emission limitation of 1.8 pounds of CO per ton iron produced.

(2) Cooling: Emission limitation of 2.88 pounds of CO per ton iron produced.

(3) Shakeout: Emission limitation of 1.32 pounds of CO per ton iron produced.

(b) Regenerative Thermal Oxidizer

Regenerative Thermal Oxidizer consists of direct contact heat exchangers constructed of a ceramic material that can tolerate the high temperatures needed to achieve ignition of the waste stream.

The inlet gas first passes through a hot ceramic bed thereby heating the stream (and cooling the bed) to its ignition temperature. The hot gases then react (releasing energy) in the combustion chamber and while passing through another ceramic bed, thereby heating it to the combustion chamber outlet temperature. The process flows are then switched, now feeding the inlet stream to the hot bed. This cyclic process affords very high energy recovery (up to 95%). The higher capital costs associated with these high-performance heat exchangers and combustion chambers may be offset by the increased auxiliary fuel savings to make such a system economical.

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a thermal oxidizer is a technically feasible option for the Osborn Line at this source.

(c) Catalytic Oxidizers

Catalytic oxidation is also a widely used control technology to control pollutants where the waste gas is passed through a flame area and then through a catalyst bed for complete combustion of the waste in the gas. This technology is typically applied for destruction of organic vapors, nevertheless it is considered as a technology for controlling CO emissions. A catalyst is an element or compound that speeds up a reaction at lower temperatures compared to thermal oxidation without undergoing change itself. Catalytic oxidizers operate at 650°F to 1000°F and approximately require 1.5 to 2.0 ft^3 of catalyst per 1000 standard ft^3 per gas flow rate.

Application of catalytic oxidation to control CO emissions from the Osborn Line PCS operation poses a major problem which is the failure of the catalyst. Emissions from PCS operation contain significant amount of particulates and iron oxides. These particulates and iron oxides can poison the catalyst resulting in the failure of catalytic oxidation. In addition, the gas stream from the PCS operation comes out with at high temperatures of about 1500 ° F which can speed up the poisoning of the catalyst. Additionally, the auto ignition temperature of CO is about 1150 - 1250°F and the presence of a catalyst would not provide any additional CO reduction.

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of a catalytic oxidizer is not a technically feasible option for the Osborn Line at this source.

The emission streams from the Osborn Line have significant levels of particulate matter. Therefore, the exhaust intended for the oxidizer would need to be preconditioned with a particulate matter control device (baghouse). A high level of control efficiency is required for introduction to an oxidizer. Therefore, the further evaluation of thermal oxidizer controls will necessarily include preconditioning of the waste gas by a baghouse control.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

(1) Recuperative Thermal Oxidizer - 98 % destruction efficiency

(2) Regenerative Thermal Oxidizer - 98 % destruction efficiency

Step 4: Evaluate the Most Effective Controls and Document the Results

Average Cost Effectiveness for the Recuperative Thermal Oxidizer = $25,527

Average Cost Effectiveness for the Regenerative Thermal Oxidizer = $11,700

Detailed estimates are contained in Appendix D. The results of these assessment yields dollar-per-ton controlled cost above the levels considered economically infeasible.

The following table lists the proposed CO BACT determination along with the existing CO BACT determinations for Osborn line pouring, cooling and shakeout operations. All data in the table is based on the information obtained from the permit application submitted by Dalton Corporation, Kendallville Manufacturing Facility, the U.S. EPA RACT/BACT/LAER Clearinghouse (RBLC), and electronic versions of permits available at the websites of other permitting agencies.

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Waupaca Foundry, Inc plant 3 - WI - 0160 Pouring/Mold Cooling P54 S68 Line 2	5.0 lb/ton metal 80.0 lb/hr	12/22/1999	No Control
Waupaca Foundry, Inc plant 3 - WI - 0155 Pouring/Mold Cooling P53 S68 Line 1	5.0 lb/ton metal 80.0 lb/hr from S68	12/23/1998	No Control

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Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 7 Phase II	5.0 lb/ton iron 150.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 5 Phase II	5.0 lb/ton iron 125.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process Line 6 & 8 Phase II	5.0 lb/ton iron 90.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc plant 1 - WI - 0078 Pouring/Cooling Process, Existing	5.0 lb/ton iron 125.0 lb/hr	02/04/1998	No Control
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Thyssen Krupp Plant #2- WI - 0237 Shakeout	1.0 lb/ton metal	12/05/2005	No Control
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Ardmore Foundry, Inc - OK - 0077 Shakeout	26.7 lb/hr	09/04/2001	No Control
Waupaca Foundry, Inc plant 6 - TN - 0131 Phase I Mold Cooling & Shakeout Lines 1 & 2	35.0 lb/month (each line) 96.0 lb/hr (Each Line)	08/24/2001	No Control
Waupaca Foundry, Inc plant 6 - TN - 0131 Phase I Mold Cooling & Shakeout Lines 3 & 4	65.70 lb/month (each line) 180.0 lb/hr (Each Line)	08/24/2001	No Control

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
Waupaca Foundry, Inc - TN - 0063 Mold Cooling & Shakeout, Cast handling and Finishing	465.0 lb/hr	04/29/2000	Incineration System and Rereouting not Considered technically viable.
Ravenna Casting Center, Inc - MI - 0274 Molding, Shakeout	98.5 lb/hr 270 tons/yr	04/14/2000	Exhaust through Fabric filter Equivalent to 4.1 lb/ton of iron cast. Sand used limited to 500,000 ton/yr.
Waupaca Foundry, Inc Plant 3 - WI - 0160 Shakeout P60, S56 Line 2	0.1lb/ton metal 16.0 lb/hr from S56	12/22/1999	No Control
Waupaca Foundry, Inc Plant 3 - WI - 0160 Shakeout Line 1 P59, S53	0.1lb/ton metal 16.0 lb/hr	12/22/1999	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0184 P33B - S25 disa Line 3 Shakeout	1.0 lb/ton 10.0 lb/hr	05/27/1999	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0184 P33A - S25 disa Line 2 Shakeout	1.0 lb/ton 16.0 lb/hr	05/27/1999	No Control
Waupaca Foundry, Inc Plant 3 - WI - 0155 Shakeout P59, S53 - disa Line 1	1.0 lb/ton metal 16.0 lb/hr from S56	12/23/1998	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0179 DISA Line 3, Shakeout P33 B	1.0 lb/ton metal	07/01/1998	No Control
Waupaca Foundry, Inc Plant 1 - WI - 0179 DISA Line 2, Shakeout P33	1.0 lb/ton metal	07/01/1998	No Control
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Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 8, Phase II	1.0 lb/ton iron 18.0 lb/hr	02/04/1998	No Control
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 6, Phase II	1.0 lb/ton iron 18.0 lb/hr	02/04/1998	No Control

Table 1: Existing CO BACT Limits – Osborn Line			
Company Name / Operation	**CO Limit**	**Year of BACT Determination**	**Control Technology**
Waupaca Foundry, Inc - IN - 0078 Shakeout, Line 5, Phase II	1.0 lb/ton iron 25.0 lb/hr	02/04/1998	No Control

The BACT limits proposed by Dalton Corporation, Kendallville Manufacturing Facility for pouring and mold cooling are 1.88 and 2.88, respectively. These limits combined are equal to 4.76 lb/ton, which is more stringent than the comparable combined lb/ton BACT limitations referenced in the table above. While it is clear that Dalton's proposed limit for shakeout of 1.32 lb/ton is not as stringent as the limits referenced above for Waupaca and Thyssen Krupp plants (1 lb/ton), the limit for Dalton is based on stack testing conducted at Dalton's Kendallville plant and more accurately reflect the normal emission rate from the shakeout operations at this plant. In addition, these other comparable BACT emission limitations are uncontrolled units, based on a determination by the permitting authority that controls are not feasible for these types of operations. Therefore, given that the proposed limit is not significantly higher than other comparable limits, and given that the materials produced at these facilities vary significantly, which affects the emission characteristic of the shakeout operations, it is reasonable to conclude that Dalton's proposed limit should be considered BACT for the Osborn Line.

Step 5: Select BACT

Recuperative Thermal Oxidizer and Regenerative Thermal Oxidizer combined with baghouse are not economically feasible due to high operating cost of these equipments.

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), IDEM has established the following as BACT for carbon monoxide (CO) for the Osborn Line pouring, cooling and shakeout operation.

The CO emissions from the Osborn Line Pouring, Cooling and shakeout units shall not exceed:

(1) Pouring: Emission limitation of 1.8 pounds of CO per ton iron produced.

(2) Cooling: Emission limitation of 2.88 pounds of CO per ton iron produced.

(3) Shakeout: Emission limitation of 1.32 pounds of CO per ton iron produced.

Air Quality Analysis

Dalton Corporation Kendallville Manufacturing Facility

Kendallville, Indiana (Noble County)

Tracking and Plant ID: 113-25804-00004

Proposed Project

Dalton Corporation Kendallville Manufacturing Facility has submitted a request for a Prevention of Significant Deterioration (PSD) permit for Carbon Monoxide (CO) emissions from the foundry. This application was made after constructions when it was determined extra CO emissions were present at foundries. Dalton was required to complete the application by December 31, 2007.

Rickun Consultants, prepared the permit application for Dalton. The Modeling Section in the Office of Air Quality (QAQ) received the permit application December 20, 2007. This technical support document provides the air quality analysis review of the permit application.

Analysis Summary

Based on the net emissions after controls, a PSD air quality analysis was triggered for CO. The significant impact analysis for CO determined that modeling concentrations exceeded the significant impact levels. A refined analysis was required and showed no violation of the NAAQS. (Pre-construction monitoring requirements are not necessary since nearby monitoring was available from Allen County.) An additional impact analysis was conducted and showed no significant impact.

Air Quality Impact Objectives

The purpose of the air quality impact analysis in the permit application is to accomplish the following objectives. Each objective is individually addressed in this document in each section outlined below.

A. Establish which pollutants require an air quality analysis based on PSD significant emission rates.

B. Provide analyses of actual stack heights with respect to Good Engineering Practice (GEP), the meteorological data used, a description of the model used in the analysis, and the receptor grid utilized for the analyses.

C. Determine the significant impact level, the area impacted by the source's emissions and background air quality levels.

D. Demonstrate that the source will not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) if the applicant exceeds significant impact levels.

E. Perform a qualitative analysis of the source's impact on general growth, soils and vegetation in the impact area with emphasis on any Class I areas. The nearest Class I area is Kentucky's Mammoth Cave National Park.

F. Summarize the Air Quality Analysis.

Section A - Pollutants Analyzed for Air Quality Impact

Applicability

The PSD requirements, 326 IAC 2-2, apply in attainment and unclassifiable areas and require an air quality impact analysis of each regulated pollutant emitted in significant amounts by a major stationary source or modification. Significant emission levels for each pollutant are defined in 326 IAC 2-2-1 and in the Code of Federal Regulations (CFR) 52.21(b) (23) (i).

Proposed Project Emissions

Carbon Monoxide is the pollutant that will be emitted from Dalton. The emissions for this project are summarized below in Table 1. CO potential emissions after controls exceed the PSD significant emission rates and will require an air quality analysis. Since the emissions for the project for all pollutants will be above the significant emission rate, they will be included in the air quality analysis.

TABLE 1
Significant Emission Rates for PSD

POLLUTANT	SOURCE EMISSION RATE (tpy)	SIGNIFICANT EMISSION RATE (tpy)	PRELIMINARY AIR QUALITY ANALYSIS REQUIRED?
CO	657	100	Yes

These are emission rates that are taken from their air quality impact analysis. These are also the emission rates that were modeled. Worst-case emission rates for were modeled for comparison with short-term impact standards.

Section B – Good Engineering Practice (GEP), Met Data, Model Used, Receptor Grid and Terrain

Stack Height Compliance with Good Engineering Practice (GEP)

Applicability

Stacks should comply with GEP requirements established in 326 IAC 1-7-4. If stacks are lower than GEP, excessive ambient concentrations due to aerodynamic downwash may occur. Dispersion modeling credit for stacks taller than 65 meters (213 feet) are limited to GEP for the purpose of establishing emission limitations. The GEP stack height takes into account the distance and dimensions of nearby structures, which would affect the downwind wake of the stack. The downwind wake is considered to extend five times the lesser of the structure's height or width. A GEP stack height is determined for each nearby structure by the following formula:

$$Hg = H + 1.5L$$

Where: Hg is the GEP stack height
H is the structure height
L is the structure's lesser dimension (height or width)

New Stacks

Since the new stack heights for Dalton are below GEP stack height, the effect of aerodynamic downwash will be accounted for in the air quality analysis for the project.

Meteorological Data

The meteorological data used in AERMOD consisted of 1988 through 1992 surface data from the Fort Wayne, Indiana and upper air measurements taken at Dayton, OH. The meteorological data was downloaded from Lakes Environmental and preprocessed using AERMET.

Model Description

Rickun Consultants used AERMOD, Version 07026. OAQ used the same model version to determine maximum off-property concentrations or impacts for each pollutant. All regulatory default options were utilized in the U.S. EPA approved model, as listed in the 40 Code of Federal Register Part 51, Appendix W “Guideline on Air Quality Models”.

Receptor Grid

OAQ modeling used the same receptor grids generated by James Rickun. The receptor grid contains 2968 individual receptors.

- 100 meter spacing along the facility’s property boundary,
- 100 meter spacing from 0 to 1,000 meters from the facility,
- 250 meters spacing from 1,000 to 3,000 meters from the facility,
- 500 meters spacing from 3,000 to 10,000 meters from the facility.

Treatment of Terrain

Receptor terrain elevation inputs were interpolated from DEM (Digital Elevation Model) data obtained from the USGS. DEM terrain data was preprocessed using AERMAP.

Section C - Significant Impact Level/Area (SIA) and Background Air Quality Levels

A significant impact analysis was conducted to determine if the source would exceed the PSD significant impact levels (concentrations). If the source's concentrations would exceed these levels, further air quality analysis is required. Refined modeling for CO was required because the results did exceed significant impact levels. Significant impact levels are defined by the following time periods in Table 2 below with all maximum-modeled concentrations from the worst case operating scenarios.

TABLE 2
Significant Impact Analysis

POLLUTANT	TIME AVERAGING PERIOD	MAXIMUM MODELED IMPACTS (ug/m^3)	SIGNIFICANT IMPACT LEVEL (ug/m^3)	REFINED AQ ANALYSIS REQUIRED
CO	1 hour*	5384	2000	Yes
CO	8 hour*	3918	500	Yes

*First highest values per EPA NSR manual October 1990. Impacts are from the Dalton only.

Pre-construction Monitoring Analysis

Applicability

The PSD rule, 326 IAC 2-2-4, requires an air quality analysis of the new source or the major modification to determine if the pre-construction monitoring threshold is triggered. In most cases, monitoring data taken from a similar geographic location can satisfy this requirement if the pre-construction monitoring threshold has been exceeded. Also, post construction monitoring could be required if the air quality in that area could be adversely impacted by applicant's emissions.

Modeling Results

A comparison of the modeling results was compared to the PSD preconstruction monitoring thresholds. The results are shown in the table below.

TABLE 3
Preconstruction Monitoring Analysis

POLLUTANT	TIME AVERAGING PERIOD	MAXIMUM MODELED IMPACTS (ug/m^3)	DEMINIMIS LEVEL (ug/m3)	ABOVE DE MINIMIS LEVEL
CO	8 hour*	3918	575	Yes

*****First highest values per EPA NSR manual October 1990. Maximum modeled impacts are from Dalton only.

CO did trigger the preconstruction monitoring threshold level. Dalton can satisfy the preconstruction monitoring requirement since there is air quality monitoring data representative of the area in Allen County.

Background Concentrations

Applicability

EPA's "Ambient Monitoring Guidelines for Prevention of Significant Deterioration" (EPA-450/4-87-007) Section 2.4.1 is cited for approval of the monitoring sites for this area.

Background Monitors

Background data was taken from the closest monitoring stations from Dalton. The closest CO monitor is located in Allen County.

For all 24-hour background concentrations, the averaged second highest monitoring values were used. Annual background concentrations were taken from the maximum annual values.

TABLE 4
Existing Monitoring Data Used For Background Concentrations *

Pollutant	Monitoring Site	Averaging Period	Concentration (ug/m3)
CO	18-003-0011/Allen County	1 hour	3091
CO	18-003-0011/Allen County	8 hour	2141

*OAQ used the most conservative values for the air quality analysis. It is standard policy to use the latest 3 years of data.

Section D - NAAQS Analysis

NAAQS Compliance Analysis and Results

OAQ supplied emission inventories of all point sources within a 50-kilometer radius of Dalton. The NAAQS inventories are generated from I-STEPS (State Emission Processing System) in accordance with 326 IAC 2-6.

NAAQS modeling for the appropriate time-averaging periods for CO was conducted and compared to the respective NAAQs limit. OAQ modeling results are shown in Table 5. All maximum-modeled concentrations were compared to the respective NAAQS limit. All maximum-modeled concentrations during the five years were below the NAAQS limits and further modeling was not required.

TABLE 5[3]
NAAQS Analysis

Pollutant	Year	Time-Averaging Period	Maximum Concentration ug/m3	Background Concentration ug/m3	Total ug/m3	NAAQS Limit ug/m3	NAAQS Violation
CO	1990	1 hour	4588	3091	7679	40000	NO
CO	1990	8 hour	3251	2141	5392	10000	NO

Part E – Qualitative Analysis

Additional Impact Analysis

All PSD permit applicants must prepare additional impacts analysis for each pollutant subject to regulation under the Act. This analysis assesses the impacts on growth, soils and vegetation, endangered species and visibility caused by any increase in emissions of any regulated pollutant from the source. The Dalton modeling submittal provided an additional impact analysis performed by Rickun Consultants.

Economic Growth

The purpose of the growth analysis is to quantify project associated growth and estimate the air quality impacts from this growth either quantitatively or qualitatively.

No new construction is part of this application. No commercial growth is anticipated to occur. Since the area is predominately rural, it is not expected the growth impacts will cause a violation of the NAAQS.

Soils and Vegetation Analysis

A list of soil types present in the general area was determined. Soil types include the following: Sandy and Loamy Lacustrine deposits and Eolian sand, Alluvial and Outwash deposits, Eolian sand deposits.

Due to the agricultural nature of the land, crops in the Noble County area consist mainly of corn, sorghum, wheat, soybeans, and oats (2002 Agricultural Census for Noble County). The maximum modeled concentrations for Dalton are well below the threshold limits necessary to have adverse impacts on the surrounding vegetation such as autumn bent, nimblewill, barnyard grass, bishopscap and horsetail, and milkweed (Flora of Indiana – Charles Deam). Livestock in Noble County consist mainly of hogs, cattle, and sheep (2002 Agricultural Census for Noble County) and will not be adversely impacted from the facility. Trees in the area are mainly hardwoods. These are hardy trees and no significant adverse impacts are expected due to modeled concentrations.

Federal and State Endangered Species Analysis

Federal and state endangered or threatened species are listed by the U.S. Fish and Wildlife Service; Division of Endangered Species for Indiana and includes 5 amphibians, 27 birds, 10 fishes, 7 mammals, 15 mollusks, and 15 reptiles. Of the federal and state endangered species on the list, 2 amphibians, 7 reptiles, 16 mollusks, 7 fish, 18 birds, and 4 mammals have habitat within Noble County. The mollusks, fish, amphibians and certain species of birds and mammals are found along rivers and lakes while the other species of birds and mammals are found in forested areas. The facility is not expected to have any additional adverse effects on the habitats of the species than what has already occurred from the industrial, farming, and residential activities in the area.

Federal and state endangered or threatened plants are listed by the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana. They list 22 state significant species of plants. At this time no federally endangered plant species are found in Noble County. The endangered plants do not thrive in industrialized and residential areas. The facility is not expected to adversely affect any plant on the endangered species list.

Additional Analysis Conclusions

Finally, the results of the additional impact analysis conclude the operation of the facility will have no significant impact on economic growth, soils or vegetation in the immediate vicinity or on any Class I area. CO is not a pollutant that affects visibility, the visibility analysis was not necessary for this application.

Part H - Summary of Air Quality Analysis

Rickun Consultants prepared the modeling portion of the PSD application. Noble County is designated as attainment for all criteria pollutants. CO emission rates associated with the proposed facility exceeded the respective significant emission rates. Modeling results taken from the latest version of the AERMOD model showed CO impacts were predicted to be greater than the significant impact levels. Dalton did trigger the preconstruction monitoring threshold level for CO but can satisfy the preconstruction monitoring requirement since there is existing air quality monitoring data representative of the area. The NAAQS for CO showed no violations of the standards. The nearest Class I area is Mammoth Cave National Park in Kentucky over 400 kilometers away from the source. An additional impact analysis was required but the operation of the proposed facility will have no significant impact.