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

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Commissioner

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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

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None

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None

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None

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Part 70 Operating Permit Emergency Occurrence Report
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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.

Responsible Official:	Plant Manager
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

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.

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 #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.

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 #21, 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 #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.

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
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
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
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
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
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
Indianapolis, Indiana 46204-2251

and

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

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

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

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
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.

326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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.

326 IAC 9-1-2 is not federally enforceable.

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
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
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
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
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
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 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 Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) and/or 326 IAC 2-3-1 (z) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr)) and/or 326 IAC 2-3-1 (mm), the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

(2) 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) 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
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
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

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

SECTION D.2 FACILITY OPERATION CONDITIONS

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 maximum heat input capacity of 5.0 million Btu per hour.

(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)]

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 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.

(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 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.

(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 #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 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 #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 #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.3.1 - Particulate, 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 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.3.3 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.3.4 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]

To demonstrate compliance with Condition 3.1 - 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.3.6 - 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.3.5 Visible Emissions Notations

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

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

(2) Wet Scrubber B exhaust (Stack B), and

(3) Wet Scrubber C exhaust (Stack C)

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.3.6 Scrubber Parametric Monitoring

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

(1) Wet Scrubber A,

(2) Wet Scrubber B, and

(3) Wet Scrubber C

used in conjunction with the Herman Shakeout, Osborn Shakeout, Hotline Secondary Shakeout, and Sand Handling System at least once per day when any of this 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.3.7 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.3.8 Record Keeping Requirements

(a) To document compliance with Condition D.3.5 - Visible Emissions Notations, the Permittee shall maintain records of the once per day visible emission notations of the:

(1) Wet Scrubber A exhaust (Stack A),
(2) Wet Scrubber B exhaust (Stack B), and
(3) Wet Scrubber C exhaust (Stack C)

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

(b) To document compliance with Condition D.3.6 - Scrubber Parametric Monitoring, the Permittee shall maintain records of the once per day 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,
(2) Wet Scrubber B, and
(3) Wet Scrubber C.

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 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.

(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.

(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.

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 #21, 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 #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.

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]

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.

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.

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.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, and Core Machine #33)

(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 #21, and Core Machine #23)

(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]

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.

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, and

(7) Core Machine #33 - - 2000.

(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, and

(6) Core Machine #16.

(c) 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.5.10 - 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) 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 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:

(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.

(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 ($38^{O}C$) (one hundred degrees

Fahrenheit (100^{O}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^{O}C) (one hundred degrees Fahrenheit (100^{O}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^{O}C) (one hundred degrees Fahrenheit (100^{O}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^{O}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

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

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.

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 #21, 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 #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.

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:

§ 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:

$$\%\ \text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \quad (Eq.\ 4)$$

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.

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, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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

Addendum to the Technical Support Document (TSD)
for a Part 70 Operating Permit

Source Background and Description

Source Name:	**Dalton Corporation, Kendallville Manufacturing Facility**
Source Location:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	200 West Ohio Street, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3321
Part 70 Operation Permit No.:	**113-6491-00004**
Source Status:	Major Source, under PSD Rules Major Source, under Section 112 of CAA One of 28 Listed Source Categories
Permit Writer:	Iryn Calilung 317/233-5692

Public Notification and Participation

On May 3, 2006, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) had a notice published in The News-Sun newspaper, stating that Dalton Corporation, Kendallville Manufacturing Facility had applied for an air approval to operate their gray iron foundry. The public comment period ended on June 2, 2006. The purpose of the 30-day public comment period is to allow anyone the opportunity to review and provide comments regarding the draft permit and its supporting documents.

The IDEM does not amend the Technical Support Document (TSD) and Appendices of the draft permit. They are maintained to document the original review. This addendum to the TSD documents the comments, responses, and revisions made from the time the permit was drafted until a final decision is made.

Comments Received from Dalton Corporation

Written comments from Dalton Corporation, Kendallville Manufacturing Facility were received on June 2, 2006. Proposed changes by Dalton Corporation are shown underlined. Summary of these comments, with corresponding IDEM's responses, including changes to the permit are written below. Proposed changes by IDEM are shown in strikeout or bold fonts.

Comment 1: Section A.1 - - Source Description and Address

(a) Dalton does not manufacture ductile iron. The section should read:

"The Permittee owns and operates a stationary gray iron foundry."

(b) The address for the facility no longer has a P.O. Box. The mailing address is 200 West Ohio Street, Kendallville, IN 46755.

Response 1: IDEM agrees with the recommended changes. Changes are shown below:

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

The Permittee owns and operates a stationary gray ~~and ductile~~ iron foundry.

Responsible Official:	Plant Manager
Source Address:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	~~P.O. Box 271, Kendallville, Indiana 46755~~ **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)

Comment 2: Sections A.2(b) and D.2 - - Cupola Melt Furnace
The heat capacity for the afterburners should be stated as a maximum. These sections should read as follows:

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

Response 2: IDEM agrees with the recommended change. Change is shown below:

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

Comment 3: Sections A.2(f) and D.3 - Sand Handling System
For clarification purposes, there needs to be an explanation of what makes up the mold sand handling operations. The following changes should be made for this purpose:

"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, exhausting to Stacks A, B and C and by bin vent filters on the sand addition and bond silos".

Response 3: IDEM agrees with the recommended changes. Changes are shown below:

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.**

Comment 4: (a) Sections A.2(h)(2) and D.5 - - South Line Mixer
(b) Sections A.2(i)(2) and D.5 - - Center Line Mixer
(c) Sections A.2(j)(2) and D.5 - - North Line Mixer

To be consistent, the resin should be stated as a throughput rather than as an emission factor. The resin throughput is based on 26 pounds of resin per ton of sand. This throughput results in an emission factor of 0.383 pounds of VOCs per ton of sand (see D.5.1(a)(2) of this proposed permit). The current language, however, substitutes pounds of resin for pounds of VOC emissions (using .383 pounds of resin instead of .383 lb/VOC per ton of sand) which are not an accurate substitution. The proposed language is based on the results of a stack test conducted in Kendallville's core room in January of 2002. These sections should read as follows:

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

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

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

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

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

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

Response 4: IDEM agrees with the recommended changes. Changes are shown below:

A.2(h)(2) One (1) mixer, identified as South Mixer #1, constructed in 1981, with ~~a~~ nominal throughput**s** of 12.0 tons of sand per hour and ~~0.383 pounds of resin per ton of sand~~ **26 pounds of resin per ton of core sand.**

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

A.2(i)(2)One (1) mixer, identified as Center Mixer #2, constructed in 1979, with ~~a~~ nominal throughput**s** of 4.2 tons of sand per hour and ~~0.383 pounds of resin per ton of sand~~ **26 pounds of resin per ton of core sand.**

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

A.2(j)(2)One (1) mixer, identified as North Mixer #3, constructed in 1964, with ~~a~~ nominal throughput**s** of 5.1 tons of sand per hour and ~~0.383 pounds of resin per ton of sand~~ **26 pounds of resin per ton of core sand.**

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

The descriptions in Section D.5 have also been changed accordingly.

Comment 5:
(a) Sections A.2(h)(3) and D.5 - - South Line Core Machines
(b) Sections A.2(i)(3) and D.5 - - Center Core Machines
(c) Sections A.2(j)(3) and D.5 - - North Line Core Machines

To be consistent, the resin should be stated as a throughput rather than as an emission factor. The resin throughput is based on 26 pounds of resin per ton of sand. (At this point in the core making process, the resin has been added at the mixer and mixed with the sand. This resin-coated sand is then transferred and utilized at the core machine with VOCs being emitted at the mixer and at the core machine). This throughput results in an emission factor at the core machine of 0.82 lb of VOCs per ton of sand (See D.5.1(d)(3)(A) and D.5.2 of this proposed permit). The current language, however, substitutes pounds of resin for pounds of VOC emissions (using 0.82 pounds of resin instead of 0.82 pounds of VOCs per ton of sand) which are not an accurate substitution. The proposed language is based on the results of a stack test conducted in Kendallville's core room in January of 2002. For example, Core Machine #10 should read as follows :

"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 sand, and 4.2 pounds of catalyst per ton of core sand".

(d) Section A.1(i)(3)(D) - - Core Wash Dip Tank #13
The phrase “with corresponding Core Wash Dip Tank #13” should be deleted. Sections A.2(k) and D.5.1(e) already refer to all dip tanks.

Response 5: IDEM agrees with the recommended changes. Changes are shown below:

A.2(h)(3) Core Machines of South Line

(a) One (1) Core Machine #30, constructed in 1981, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 a nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 South Line are controlled by Acid Scrubber T, and exhaust to Stack T.

A.2(i)(3) Core Machines of Center Line

(a) One (1) Core Machine #10, constructed in January 1977, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 a nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal

throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **26 pounds of resin per ton of core sand**, and 4.2 pounds of catalyst per ton of core sand~~, with corresponding Core Wash Dip Tank #13.~~

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.

A.2(j)(3)Core Machines of North Line

(a) One (1) Core Machine #14, constructed in 1995, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour ~~0.82 pounds of resin per ton of core sand~~ **26 pounds of resin per ton of sand**, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #21, constructed in 1968, with ~~a~~ nominal throughput**s** of 1.8 tons of core~~s~~ **sand** per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 #23, constructed in 1968, with ~~a~~ nominal throughput**s** of 1.8 tons of core~~s~~ **sand** s per hour, ~~0.82 pounds of resin per ton of core sand~~ **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 North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

The descriptions in Section D.5 have also been changed accordingly.

Comment 6: Section E.1 - - Core Machines #33 and #16
The descriptions of Core Machines #33 and #16 in Section E of the draft permit include the resin emissions. The MACT standard is concerned only with the catalyst (Triethylamine) emissions. IDEM has removed the reference to the resin in the descriptions of all the other core machines and should be consistent. The description for Core Machines #33 and 316 should read:

"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 (TEA gas) per ton of core sand".

"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 (TEA gas) per ton of core sand".

Response 6: IDEM agrees with the recommended changes and also made changes to be consistent with the descriptions as indicated in Response 5. Changes are shown below:

South Line

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

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

(d) One (1) Core Machine #33, constructed in 2000, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, ~~0.82 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 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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** s per hour and 4.2 pounds of catalyst per ton of core sand.

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

(d) One (1) Core Machine #13, constructed in 1983, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour and 4.2 pounds of catalyst per ton of core sand~~,~~

~~with corresponding Core Wash Dip Tank #13~~.

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 ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour and 4.2 pounds of catalyst per ton of core sand.

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

(c) One (1) Core Machine #16, constructed in 2000, with ~~a~~ nominal throughput**s** of 3.0 tons of core~~s~~ **sand** per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) One (1) Core Machine #21, constructed in 1968, with ~~a~~ nominal throughput**s** of 1.8 tons of core~~s~~ **sand** per hour and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #23, constructed in 1968, with ~~a~~ nominal throughput**s** of 1.8 tons of core~~s~~ **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 North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

Comment 7: Condition D.5.10(d)
The pH level is a maximum limit. To be consistent, the first sentence of Condition D.5.10(d) should read as follows:

"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."

Response 7: IDEM agrees with the recommended changes. Changes are shown below:

D.5.10(d) pH Level
When for any one reading, the pH level of the scrubbing solution exceeds the normal maximum of 4.5 or a ~~minimum~~ **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.

Comments Received from US EPA Region 5

Written comments were received from the US EPA Region 5 on May 31, 2006. Summary of these comments, with corresponding IDEM's responses, including changes to the permit are written below. Proposed changes by IDEM are shown in strikeout or bold fonts.

Comment 1: Condition D.2.3 - Emission Controls
Condition D.3.3 - Emission Control
Condition D.4.3 - Emission Control
Condition D.5.6 - Emission Controls
Condition D.6.4 - Emission Control
Please state the origin and authority for these conditions.

Response 1: IDEM has the authority under 326 IAC 2-7-5(1) to require the Permittee to operate emission controls to verify compliance with applicable requirements. This rule cite will be added to each condition mentioned above.

Comment 2: Condition D.5.1 - VOC PSD Minor Limits
Condition D.5.2 - VOC Limits
Condition D.5.3 - PM and PM_{10} Minor Limits
Condition D.6.1 - PM and PM_{10} PSD Minor Limits
It appears that this permit is retroactively setting PSD minor limits for units, which were constructed without a permit. Have these units exceeded the thresholds in the past? Please explain why the November 1998 Injunctive Relief policy memo was not applied to these modifications.

Response 2: With respect to the core room, several units were previously constructed without a permit. However, records provided by Dalton Corporation indicate that actual emissions from these units never exceeded the PSD thresholds. Therefore, in accordance with the injunctive relief memo dated November 1998, it is the regulatory agency's discretion to determine whether the units should be subject to PSD. These units in the core room already operate a scrubber, which is the level of control required by the MACT. The PSD BACT would not require anything more stringent than what they need to do to comply with the PSD minor limits. Taking into account all of that, IDEM determined that it was not necessary to require these units to go through PSD major review. There are no changes to the draft permit due to this comment.

Comment 3: Agreed Orders A-4241, A-342 and 2001-11042-A
Has IDEM included the Agreed Orders A-4241, A-342, and 2001-11042-A, signed in May 2006?

Response 3: IDEM is aware of these Agreed Orders. The requirements specified in these Agreed Orders were not incorporated in the proposed Part 70 Operating Permit because of the commitment to issue pending initial Part 70 Operating Permits as soon as possible. Applicable requirements specified in these Agreed Orders will be incorporated into the Part 70 Operating Permit through Significant Permit Modification. Even though these applicable requirements are not incorporated into the Part 70 Operating Permit at this time, they are still enforceable. There are no changes to the draft permit due to this comment.

Changes Initiated by IDEM

(1) All references to the IDEM, OAQ, Compliance Section's telephone number have been updated as follows: **317-233-0178**.

(2) All references to the IDEM, OAQ, Compliance Section's facsimile number have been updated as follows: **317-233-6865**.

(3) Condition B.10(a) - Annual Compliance Certification has been revised as follows to provide clarification.

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 ~~in letter form~~ no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
and
United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(4) Conditions C.18(a) - General Record Keeping Requirements and C.19(f) - General Reporting Requirements have been revised to reflect New Source Review (NSR) reform provisions at major sources.

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 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 Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) **and/or 326 IAC 2-3-1 (z)** may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr)) **and/or 326 IAC 2-3-1 (mm)**, the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

(2) 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) 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(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
Indianapolis, Indiana 46204-2251

(5) Condition 5.7 - Testing Requirements has been revised as follows to provide clarification:

D.5.7 Testing Requirements [326 IAC 2-7-6(1) and (6)] [326 IAC 2-1.1-11]
In order to demonstrate compliance with Condition~~s~~ D.5.1 VOC PSD Minor Limit ~~and D.5.2 - VOC Limits~~, 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.

Conclusion and Recommendation

(1) The operation of this gray iron foundry shall be subject to the conditions of the attached proposed Part 70 Permit No. **113-6491-00004.**

(2) The OAQ staff recommends to the IDEM's Commissioner that this approval to operate be approved.

(3) Copies of the application and findings have been provided to the Kendallville Public Library, 126 West Rush Street, Kendallville, IN 46755.

IDEM Contact

Questions regarding this proposed permit can be directed to Ms. Iryn Calilung at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5692 or toll free at 1-800-451-6027 extension 3-5692.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Part 70 Operating Permit

Source Background and Description

Source Name:	**Dalton Corporation, Kendallville Manufacturing Facility**
Source Location:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	P.O. Box 271, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3321
Part 70 Operation Permit No.:	**113-6491-00004**
Source Status:	Major Source, under PSD Rules Major Source, under Section 112 of CAA One of 28 Listed Source Categories
Permit Writer:	Iryn Calilung 317/233-5692

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Dalton Corporation, Kendallville Manufacturing Facility, relating to the operation of a gray iron foundry. This Part 70 permit contains provisions intended to satisfy the requirements of the construction permit rules.

Permitted Emission Units and Pollution Control Equipment

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

(a) 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 through #30.

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

(b) 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.

(c) 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.

(d) Core Sand Handling System of South Line
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.

(e) Core Machines and Core Wash Dip Tank
(1) One (1) Core Machine #33, constructed in 2000, with a nominal throughput of 3.0 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

Core Machine #33 is part of the South Line.

(2) One (1) Core Machine #16, constructed in 2000, with a nominal throughput of 3.0 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

Core Machine #16 is part of the North Line.

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

(3) Core Wash Activities
These 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.

Unpermitted Emission Units and Pollution Control Equipment

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

(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.

(b) 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.

Dalton installed a dust collector on the charge door in 2001; however, it never worked properly and in 2002, Dalton removed the dust collector and constructed a refractory brick mixing ring within the cupola to create better combustion of the off-gases and to prevent emissions from the cupola charge opening.

Notes: The Cupola Melt Furnace was originally permitted as a 20 ton per hour cupola; however, the 1984 modification was never permitted. The Cupola Melt Furnace is now a 38.0 ton per hour cupola.

The Cupola Melt Furnace was tested in 2002 for particulate and opacity.

(c) Herman Line

(1) One (1) Herman Pouring/Casting Line, constructed in 1970, with a nominal throughput 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 a nominal throughput 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 a nominal throughput 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.

(d) Osborn Line

(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 #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.

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

(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.

(f) Sand Handling System

One (1) Sand Handling System, constructed in 1984, with a nominal throughput of 269.0 tons of sand per hour.

Emissions from the Sand Handling System are controlled by Wet Scrubbers A, B and C, and exhaust to Stacks A, B, and C.

Note: The original sand system was permitted as a 110 ton per hour sand system; however, the replacement, installed in 1984, was never permitted, and the nominal capacity of the sand system at the time of installation was not known. The Sand Handling System is now a 269.0 ton per hour sand system.

(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.

(h) South Line

(1) Core Sand Handling

The Core Sand Handling System for the South Line is already listed in the *Permitted Emission Units and Pollution Control Equipment* portion of this TSD.

(2) Mixer

One (1) mixer, identified as South Mixer #1, constructed in 1981, with a nominal throughput of 12.0 tons of sand per hour and 0.383 pounds of resin per ton of sand.

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

The South Mixer #1 was tested in 2002 for VOC emissions.

(3) Core Machines

(a) One (1) Core Machine #30, constructed in 1981, with a nominal throughput of 3.0 tons of cores per hour, 0.82 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(d) Core Machine #33, which is part of the South Line, is already listed in the *Permitted Emission Units and Pollution Control Equipment* portion of this TSD.

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.

(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 a nominal throughput of 4.2 tons of sand per hour and 0.383 pounds of resin per ton of 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 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 a nominal

throughput of 3.0 tons of cores per hour, 0.82 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand, with corresponding Core Wash Dip Tank #13.

Core Wash Dip Tank #13 does not contain any VOCs.

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.

(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 a nominal throughput of 5.1 tons of sand per hour and 0.383 pounds of resin per ton of 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 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 a nominal throughput of 3.0 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(c) Core Machine #16, which is part of the North Line, is already listed in the *Permitted Emission Units and Pollution Control Equipment* portion of this TSD.

(d) One (1) Core Machine #21, constructed in 1968, with a nominal throughput of 1.8 tons of cores per hour, 0.82 pounds of resin per ton of core sand, and 4.2 pounds of catalyst per ton of core sand.

(e) One (1) Core Machine #23, constructed in 1968, with a nominal throughput of 1.8 tons of cores per hour, 0.82 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 North Line are controlled by Acid Scrubber T, and exhaust to Stack T.

(k) Core Ovens
Three (3) natural gas-fired core ovens, identified as Core Ovens #1, #2 and #3, each core oven has a nominal capacity of 2.0 MMBtu per hour. These core ovens are common to the South Line, Center Line, and North Line.

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.

New Emission Units and Pollution Control Equipment

There are no new facilities to be reviewed.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

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

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

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

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

(e) Combustion source flame safety purging on startup.

(f) 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.

(g) 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.

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

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

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

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

(l) Cleaners and solvents characterized as follows:

(1) 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
(2) 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.

(m) Water based activities including the following:

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

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

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

(4) Noncontact cooling tower system with either of the following:
(a) Natural draft cooling towers not regulated under a NESHAP; and
(b) Forced and induced draft cooling tower systems not regulated under a NESHAP.

(n) Heat exchanger cleaning and repair.;

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

(p) 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.;

(q) 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.

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

(s) Filter or coalesce media changeout.

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

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

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

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

(x) Filling drums, pails, or other packaging containers with the following:
(1) Lubricating oils
(2) Waxes
(3) Greases

(y) Closed loop heating and cooling systems.

(z) 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:
(1) Deburring
(2) Buffing
(3) Polishing
(4) Abrasive blasting
(5) Pneumatic conveying
(6) Woodworking operations

Trivial Activities

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

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

(b) Activities related to ventilation, venting equipment, and refrigeration, including the following;
(1) 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.

(2) 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.

(3) Air vents from air compressors

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

(c) 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:

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

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

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

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

(5) Tarring, retarring and repair of building roofs

(d) Housekeeping and janitorial activities and supplies

(e) Office supplies and equipment

(f) Lawn care and landscape maintenance activities and equipment

(g) Storage of castings

Table 1 - - Control Summary	
Add-On Control Device	Operations
Wet Scrubber M	Cupola Melt Furnace
Wet Scrubber A	Hotline Secondary Shakeout Sand Handling System
Wet Scrubber B	Osborn Shakeout Hotline Secondary Shakeout Sand Handling System
Wet Scrubber C	Herman Shakeout Osborn Shakeout Sand Handling System
Baghouse P	Sprue and Sand Transport System
Acid Scrubber T	Core Machine #10 Core Machine #11 Core Machine #12 Core Machine #13 Core Machine #14 Core Machine #15 Core Machine #16 Core Machine #21 Core Machine #23 Core Machine #30 Core Machine #31 Core Machine #32 Core Machine #33
Bin Vent Filter	Core Sand Handling System of South Line
Bin Vent Filter	Core Sand Handling System of Center Line
Bin Vent Filter	Core Sand Handling System of North Line
Baghouse E	Tumble Blast #4 and Hanger Spinner Blast #5
Baghouse F	Grinders #1 to #13
Baghouse G	Grinders #14 to 20 Automatic Deburring Machine
Baghouse H	Hanger Spinner #6
Baghouse I	Shot Blast #7 and Grinders #25 to #30
Baghouse O	Tumble Blast #1 Tumble Blast #2 Grinders #21 to #24

Existing Approvals

The source has constructed or has been operating under the following previous approvals (the air approvals are arranged in ascending order in terms of issuance date):

Table 2 - - Issued Approvals

Permit Number	Issuance Date	Approval Details
OP 57-06-87-0096	January 30, 1984	A 20 ton per hour cupola, a 110 ton per hour sand handling system, cleaning and grinding operations, a core sand handling system, and three sand storage silos.
R 113-3160-0004	November 2, 1993	Replacement of two (2) baghouses by one (1) baghouse (Stack O).
E 113-4181-00004	December 1, 1994	Addition of a baghouse to the existing (previously uncontrolled) Sprue and Sand Transport System.
A 113-9578-00004	November 9, 1998	Name Change
E 113-10117-00004	February 2, 1999	Grinders #21 through #24
SSM 113-11287-00004	November 3, 1999	Shot Blast #7 with Baghouse I, and Grinders #25 through #30 with Baghouse I
SSM 113-11488-00004	January 14, 2000	Core Machine #16
E 113-12355-00004	July 19, 2000	Electric core oven PC01 and natural gas-fired core oven C03
SSM 113-12446-00004	April 12, 2001	Core Machine #33
E 113-14431-00004	July 30, 2001	A small core machine for laboratory research purposes
A113-14445-00004	August 28, 2001	Amendment of SSM 113-11287, issued on November 3, 1999, for a modification to the description of the Shot Blast #7.
E 113-15626-00004	June 10, 2002	Two (2) natural gas-fired afterburners to control CO emissions from the Cupola Melt Furnace.
E 113-15818-00004	July 25, 2002	Two (2) natural gas-fired afterburners to control CO emissions from the Cupola Melt Furnace.
SPM 113-16474-00004	February 5, 2003	Modification of the emission limits for Core Machine #33 and Core Machine #16.
E 113-17109-00004	February 26, 2003	One (1) Automatic Deburring Machine with emissions exhaust to Baghouse G
RR 113-16390-00004	November 12, 2004	Section 112(j) applicability determination

All terms and conditions from previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit. All construction conditions from all previously issued permits have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit. These were not incorporated because all facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

Enforcement Issue

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under *Unpermitted Emission Units and Pollution Control Equipment* of this TSD.

County Attainment Status

(1) The source is located in Noble County.

Table 3 - County Status	
Pollutant	Status
PM_{10}	attainment
PM2.5	attainment
SO_2	attainment
NO_2	attainment
1-hour ozone	attainment
8-hour ozone	attainment
CO	attainment

(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.

(3) Noble County has been classified as attainment or unclassifiable in Indiana for the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(4) 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 PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM_{10} emissions as a surrogate for PM2.5 emissions.

(5) Since this source is classified as a secondary metal production plant, it is considered one of the 28 listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

Emission Calculations

See Appendix A - Emissions Calculations - of this TSD for the calculations (11 pages).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

Table 4 - - Potential Emissions	
Pollutant	Potential Emissions (tons/year)
PM	greater than 100
PM_{10}	greater than 100
SO_2	greater than 100
VOC	greater than 100
CO	greater than 100
Single HAP	greater than 10
Total HAPs	greater than 25

(1) For the purpose of determining Part 70 Operating Permit applicability for particulates, PM_{10}, not PM, is the regulated pollutant in consideration.

(2) The potential emissions (as defined in 326 IAC 1-2-55) of all criteria pollutants are equal to or greater than 100 tons per year or more. Therefore, this source is subject to the provisions of 326 IAC 2-7 (Part 70 Program).

(3) The potential emissions (as defined in 326 IAC 1-2-55) of at least one single HAP is equal to or greater than ten (10) tons per year and the potential emissions (as defined in 326 IAC 1-2-55) of a combination of HAPs is greater than or equal to 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 (Part 70 Program).

Actual Emissions

The following table shows the actual emissions submitted by the source. This information reflects the 2003 OAQ Emission Inventory database.

Table 5 - - Actual Emissions	
Pollutant	Actual Emissions (tons/year)
PM	365
PM_{10}	242
SO_2	19
VOC	82
CO	677
NO_x	36
Lead	0.00

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. The dates in parenthesis indicate the construction or modification dates of the emission units. The table also indicated if there are any add-on control devices associated with the emission units.

(1) Refer to Table 7 of this TSD for the PSD applicability Determination for these emission units. Also, refer to Appendix A - Emissions Calculations - of this TSD for the detailed calculations.

(2) Unless otherwise specified the limited potential to emit of the emission units in Table 6 are based on the potential emissions before control or after control, as applicable, and at full maximum production.

(3) The VOC emissions from the Core Room (South Mixer #1, Center Mixer #2, North Mixer #3 and all the core machines controlled by the Acid Scrubber T exhaust (Stack T)) are limited to less than 40 tons per year to render the PSD requirements under 326 IAC 2-2 (PSD) not applicable.

See Table 8 of this TSD for the sand throughput limits, TEA and Non-TEA limitations to render the PSD requirements under 326 IAC 2-2 (PSD) not applicable for VOC emissions.

(4) Since the sand throughputs of the Core Room are limited to render the PSD requirements under 326 IAC 2-2 (PSD) not applicable for VOC emissions, the particulate emissions from the Core Sand Handling Systems of the Core Room are also limited based on the south throughput of the Core Room.

See Table 8 of this TSD the sand throughput limits to the Core Room.

See Tables 9 and 10 of this TSD for the emissions calculations based on the sand throughput to the Core Room.

(5) The particulate emissions from each of the following baghouses are limited to less than 25 tons per year and 15 tons per year for PM and PM_{10}, respectively, to render the PSD requirements under 326 IAC 2-2 (PSD) not applicable:
(a) Baghouse E,
(b) Baghouse F,
(c) Baghouse G,
(d) Baghouse H,
(e) Baghouse I, and
(f) Baghouse O.

Table 6 - - Limited Potential to Emit (tons/year)							
Process/facility	PM	PM_{10}	SO_2	NO_X	VOC	CO	Lead
Cupola Charge Handling (1970 and 1984 modification) No Control (NC)	113.5	68.1	0	0	0	0	0.378
Cupola Melt Furnace (1970 and 1984 modification) Wet Scrubber M and Afterburners	87.5	142.4	208.1	16.6	30.0	2413.4	0.333
Herman Pouring/Casting (1970) (NC)	245.28	180.46	1.75	0.876	12.26	101.88	1.4
Herman Cooling (1970) (NC)	122.64	122.64	0	0	60.18	164.86	0
Osborn Pouring/Casting (1984) (NC)	306.6	225.6	2.2	1.1	15.3	127.35	1.75
Osborn Cooling (1984) (NC)	153.3	153.3	0	0	24.0	206.08	0
Herman Shakeout (1970) Wet Scrubber C	19.34	13.54	0	0	105.12	3539.35	0.016
Osborn Shakeout (1984) Wet Scrubber B and Wet Scrubber C	24.2	16.9	0	0	24.0		0.02
Hotline Secondary Shakeout (1954) Wet Scrubber A and Wet Scrubber B	48.4	33.9	0	0	262.8		0.039
Sand Handling System (1984) Wet Scrubbers A, B, and C	292.7	43.9	0	0	0	0	0
Sprue And Sand Transport (1984) Baghouse P	8.4	1.3	0	0	0	0	0
South Line Core Sand Handling (1981) Bin Vent	12.19	7.11	0	0	0	0	0
Center Line Core Sand Handling (1979) Bin Vent	12.19	7.11	0	0	0	0	0
North Line Core Sand Handling (1964) Bin Vent	12.86	7.5	0	0	0	0	0

Table 6 - - Limited Potential to Emit (tons/year) (Continuation)								
Process/facility		PM	PM_{10}	SO_2	NO_X	VOC	CO	Lead
South Mixer #1 (1981) (NC)		0	0	0	0		0	0
Center Mixer #2 (1979) (NC)		0	0	0	0		0	0
North Mixer #3 (1964) (NC)		0	0	0	0		0	0
Core Machine #10 (1977)	Acid Scrubber T	0	0	0	0		0	0
Core Machine #11 (1996)		0	0	0	0		0	0
Core Machine #12 (1977)		0	0	0	0	39	0	0
Core Machine #13 (1983)		0	0	0	0		0	0
Core Machine #14 (1995)		0	0	0	0		0	0
Core Machine #15 (1982)		0	0	0	0		0	0
Core Machine #16 (2000)		0	0	0	0		0	0
Core Machine #21 (1968)		0	0	0	0		0	0
Core Machine #23 (1968)		0	0	0	0		0	0
Core Machine #30 (1981)		0	0	0	0		0	0
Core Machine #31 (1977)		0	0	0	0		0	0
Core Machine #32 (1979)		0	0	0	0		0	0
Core Machine #33 (2000)		0	0	0	0		0	0
Baghouse E - Tumble Blast #4 (1979) - Hanger Spinner Blast #5 (1980)		24.9	14.9	0	0	0	0	0
Baghouse F - Grinders #1 to #13 (1980)		24.9	14.9	0	0	0	0	0
Baghouse G - Grinders #14 to #20 (1980) - Automatic Deburring Machine (2003)		24.9	14.9	0	0	0	0	0
Baghouse H - Hanger Spinner #6 (1980)		24.9	14.9	0	0	0	0	0
Baghouse I - Shot Blast #7 (1999) - Grinders #25 to #30 (2000 and 2001)		24.9	14.9	0	0	0	0	0
Baghouse O - Tumble Blast #1 (1964) - Tumble Blast #2 (1964) - Grinders #21 to #24 (1998)		24.9	14.9	0	0	0	0	0
Total Emissions (tons/year)		**1608.50**	**1113.16**	**212.05**	**18.576**	**572.82**	**6552.9**	**3.9**

PSD Applicability Determination

(1) Entire Source
This existing source is a major stationary source because it is one of the 28 listed source categories (secondary metal production) and at least one attainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(2) The following table summarizes the PSD applicability determination of each significant emission unit. The emission units are arranged in ascending order based on the construction or modification dates of the emission units.

(3) When the South Mixer #1, Center Mixer #2, and North Mixer #3 were installed, existing core machines were also modified. The individual mixers were also removed and these mixers supplied the sand and resin mixture to the core machines. Thus, the VOC emissions from the Core Room (South Mixer #1, Center Mixer #2, North Mixer #3, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year, such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply.

Table 7 - - PSD Applicability Determination

Construction or Modification Date	Emission Unit	PSD Applicability Determination
1954	Hotline Secondary Shakeout	This Hotline Secondary Shakeout is not subject to PSD review under 326 IAC 2-2 because it was constructed prior to the PSD applicability date and it has not been modified.
1964	North Mixer #3	Even though this North Mixer #3 was constructed prior to the PSD applicability date, a VOC PSD minor limit will be specified because its was affected when a core machine was added. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units. See Table 9 of this TSD for the particulate emissions from the North Line Core Sand Handling System based on the sand limitations to the Core Room.
	North Line Core Sand Handling System	
	Tumble Blast #1	Even though this Tumble Blast #1 was constructed prior to the PSD applicability date, PSD minor limits are specified for Baghouse O, which controls the Tumble Blast #1, because Baghouse O also controls other emission units that require PSD minor limits. Baghouse O controls Tumble Blast #1(1964), Tumble Blast #2 (1964), and Grinders #21 to #24 (1998).

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
1964	Tumble Blast #2	Even though this Tumble Blast #2 was constructed prior to the PSD applicability date, PSD minor limits are specified for Baghouse O, which controls the Tumble Blast #2, because Baghouse O also controls other emission units that require PSD minor limits. Baghouse O controls Tumble Blast #1(1964), Tumble Blast #2 (1964), and Grinders #21 to #24 (1998).
1968	Core Machine #21	Even though these Core Machines #21 and #23 were constructed prior to the PSD applicability date, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because these core machines exhaust to the same acid scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
	Core Machine #23	
1970	Cupola Melt Furnace	This Cupola Melt Furnace is not subject to PSD review under 326 IAC 2-2, because this line was constructed prior to the PSD applicability date. However, it was modified in 1984. See below for PSD analysis of the modification made in 1984. The PTE after control of the Cupola Melt Furnace are greater than the PSD Major Source Levels, thus the source is classified as an existing PSD major source. (see Table 2 of Appendix A of this TSD)
	Herman Line	This Herman Line is not subject to PSD review under 326 IAC 2-2, because this line was constructed prior to the PSD applicability date and it has not been modified. The PTE after control of the Herman Line are greater than the PSD Major Source Levels, thus the source is classified as an existing PSD major source. PM = 387.26 tons/year PM_{10} = 316.64 tons/year VOC = 177.56 tons/year

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
1977	Core Machine #31 Core Machine #10 Core Machine #12	Since these Core Machines #31, #10, and #12 exhaust to the same acid scrubber (Acid Scrubber T) as other core machines that require PSD minor limits, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
1979	Center Mixer #2 Center Line Core Sand Handling System	Even though the VOC PTE of the Center Mixer #2 is less than the PSD Significant Level, the VOC emissions of the Center Mixer #2, South Mixer #1, North Mixer #3, and all the core machines controlled by the Acid Scrubber T are limited to less than 40 tons per year, in order to render the PSD requirements under 326 IAC 2-2 not applicable. See Table 9 of this TSD for the particulate emissions from the North Line Core Sand Handling System based on the sand limitations to the Core Room.
	Core Machine #32	Even though the VOC PTE of this Core Machine #32 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #32 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
1980	Hanger Spinner Blast #5	PSD Minor limits will be specified for Baghouse E, which controls this Hanger Spinner Blast #5, because Baghouse E also controls other emission unit that require PSD minor limits. Baghouse E controls Hanger Spinner Blast #5 (1980) and Tumble Blast #4 (1979).
	Grinders #1 to #20	PSD Minor limits will be specified for Baghouses F and G, which control these grinders, because Baghouse F and G also control other emission units that require PSD minor limits. Baghouse F controls Grinders #1 to #13. Baghouse G controls Grinders #14 to #20 and the Automatic

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
		Deburring Machine (2003).
1981	South Mixer #1	The South Mixer #1 was permitted under Permit Modification 113-16474-0000, issued on February 5, 2003, such that the PSD requirements of 326 IAC 2-2 (PSD) do not apply. The limits specified in this air approval were re-evaluated because the VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
	South Line Core Sand Handling System	See Table 9 of this TSD for the particulate emissions from the North Line Core Sand Handling System based on the sand limitations to the Core Room.
	Core Machine #30	Even though the VOC PTE of this Core Machine #30 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #30 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
1982	Core Machine #15	Even though the VOC PTE of this Core Machine #15 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #15 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
1983	Core Machine #13	Even though the VOC PTE of this Core Machine #13 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #13 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
	Hanger Spinner Blast #6	The particulate PTE of this Hanger Spinner Blast #6 is greater than the PSD Significant Levels. Limits are specified for Baghouse H such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply. PM PTE after control = 31.1 tons/year (see Table 21 of Appendix of this TSD) PM PTE After control/limit = 24.9 tons/year (see Table 6 of this TSD)
1984	Cupola Charge Handling (1970)	These emission units were either constructed or modified in 1984. Even though the PTE of these emission units is 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 emissions units from PSD review for future modifications.
	Cupola Melt Furnace (1970)	
	Osborn Line	
	Sand Handling System	
	Sprue and Sand Transport System	

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
1995	Core Machine #14	Even though the VOC PTE of this Core Machine #14 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #14 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
1996	Core Machine #11	Even though the VOC PTE of this Core Machine #11 is less than the PSD Significant Level, PSD minor limits are specified such that the PSD requirements under 326 IAC 2-2 (PSD) do not apply because this Core Machine #11 exhaust to the same acid Scrubber (Acid Scrubber T) as other core machines that require PSD minor limits. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
1998	Grinders #21 to #24	PSD Minor limits will be specified for Baghouse I, which controls these grinders, because Baghouse I also controls other emission units that require PSD minor limits. Baghouse I controls Grinders #21 to #30 (1998) and Shot Blast #7 (1968).

Table 7 - - PSD Applicability Determination		
Construction or Modification Date	Emission Unit	PSD Applicability Determination
1999	Shot Blast #7	Baghouse I that controls the emissions from Shot Blast #7 and Grinders #25 to #30 was permitted under SSM 113-11287-00004, issued on November 3, 1999, such that the 326 IAC 2-2 PSD requirements do not apply. Baghouse I controls Grinders #21 to #30 and Shot Blast #7 (199).
	Grinders #25 and #30	
	Core Machine #16	This Core Machine #16 was permitted under Permit Modification 113-16474-0000, issued on February 5, 2003, such that the PSD requirements of 326 IAC 2-2 (PSD) do not apply. The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
	Core Wash Dip Tanks	These Core Wash Dip Tanks were permitted under Permit Modification 113-16474-0000, issued on February 5, 2003, such that the PSD requirements of 326 IAC 2-2 (PSD) do not apply. Limits specified in this air approval will be incorporated into the Part 70 Operating Permit.
2000	Core Machine #16	The VOC emissions from the Core Room (North Mixer #3, South Mixer #1, Center Mixer #2, and all the core machines controlled by the Acid Scrubber T) are limited to less than 40 tons per year. See Table 8 of this TSD for the VOC limit allocations of these units.
	Core Machine #33	
2003	Automatic Deburring Machine	PSD Minor limits will be specified for Baghouse G, which controls the Automatic Deburring Machine, because Baghouse G also controls other emission units that require PSD minor limits. Baghouse G controls this Automatic Deburring Machine (2003) and Grinders #14 to #20 (1998).

The following table summarizes the VOC limit allocations for the Core Room (Mixers and Core Machines), such that the VOC emissions from these units are limited to less than 40 tons per year.

Table 8 - - VOC PSD Minor Limits for the Core Room				
Process	Add-on Control Device	Throughput Limits (tons/year of sand)	Emission Factors (lbs/ton)	VOC Limit Allocations (tons/year)
South Mixer #1 (1981) *	- -	18,000	0.383	3.45
Center Mixer #2 (1979)	- -	18,000	0.383	3.45
North Mixer #3 (1964)	- -	19,000	0.383	3.64
Core Machine #10 (1977)	Acid Scrubber T	55,000	TEA = 0.0001	0.00275
Core Machine #11 (1996)				
Core Machine #12 (1977)				
Core Machine #13 (1983)			Resin = 0.82	22.55
Core Machine #14 (1995)				
Core Machine #15 (1982)				
Core Machine #16 (2000)				
Core Machine #21 (1968)			Core Wash = 0	0
Core Machine #23 (1968)				
Core Machine #30 (1981)			Parts Spray = 0.162	4.45
Core Machine #31 (1977)			Core Box Cleaner = 0.059	1.62
Core Machine #32 (1979)				
Core Machine #33 (2000)				
Total	- -	- -	- -	**39.16** tons/year

Methodology:

Total Sand Throughput to the Core Room = (18,000 tons/year)+ (18,000 tons/year)+(19,000 tons/year)
= 55,000 tons/year

VOC Limit = (Throughput limit tons/year)*(Emission Factor lbs/ton)*(1 ton/2000 lbs) = tons/year

See Table 16 of Appendix A of this TSD for the VOC emission factors for the South Mixer #1, Center Mixer #2, and North Mixer #3.

See Table 17 of Appendix A of this TSD for the VOC emission factors for the core machines of the Core Room.

* The sand throughput of the South Mixer #1 was originally limited to 35,450 tons per year of sand, specified in Permit 113-16474-00004, issued on February 5, 2003. Based on the re-evaluation of the VOC limits, this is the new sand throughput limit for the South Mixer #1.

The following tables summarize the particulate limits for the Core Room Sand Handling Systems based on the sand throughout limits to the Core Room.

Table 9 - - PM Emissions from Core Sand Handling of South Line, Center Line and North Line			
Mixer ID	Throughput Limits (tons/year of sand) (tons/hour)	PM Emission Factor (lb/ton)	PTE After Control (tons/yr)
South Line Core Sand Handling	18,000	1.354	12.19
Center Line Core Sand Handling	18,000	1.354	12.19
North Line Core Sand Handling	19,000	1.354	12.86
Methodology: PM Limit = (Throughput limit tons/year)*(Emission Factor lbs/ton)*(1 ton/2000 lbs) = tons/year = tons/year			

Table 10 - - PM_{10} Emissions from Core Sand Handling of South Line, Center Line and North Line			
Mixer ID	Throughput Limits (tons/year of sand) (tons/hour)	PM_{10} Emission Factor (lb/ton)	PTE After Control (tons/yr)
South Line Core Sand Handling	18,000	0.79	7.11
Center Line Core Sand Handling	18,000	0.79	7.11
North Line Core Sand Handling	19,000	0.79	7.5
Methodology: PM Limit = (Throughput limit tons/year)*(Emission Factor lbs/ton)*(1 ton/2000 lbs) = tons/year = tons/year			

Federal Rule Applicability

The following federal rules are applicable to the source:

(1) New Source Performance Standards (NSPS) 40 CFR 60 and 326 IAC 12
There are no NSPS included in this permit for this source.

(2) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63
This source is subject to the NESHAP for Metal and Steel Foundries, (40 CFR 63, Subpart EEEEE), which was in effect on April 22, 2004.

Pursuant to 40 CFR 63.7682(b), this subpart covers emissions from metal melting furnaces, pouring areas, pouring stations, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.

The following processes are affected by this subpart:
(a) Cupola Melt Furnace,
(b) Herman Pouring/Casting Line,
(Herman Pouring/Casting Line is classified as a pouring station under this NESHAP)
(c) Osborn Pouring/Casting Line,
(Osborn Pouring/Casting Line is classified as a pouring station under this NESHAP)
(d) Each Core Machine of South Line,
(e) Each Core Machine of Center Line,
(f) Each Core Machine of North Line, and
(g) Each building or structure housing any emissions source at the foundry.

Pursuant to 40 CFR 63.7682(b), this source is an existing affected source because this source commenced construction or reconstruction before December 23, 2002.

Pursuant to 40 CFR 63.7683(a), this source must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies no later than April 23, 2007.

However, pursuant to 40 CFR 63.7683(b), this source must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.

(3) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) requirements are applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(a) has a potential to emit before or after controls equal to or greater than the major source threshold for the pollutant involved;

(b) is subject to an emission limitation or standard for that pollutant; and

(c) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Since this is the initial Part 70 Operating Permit for this source, a CAM plan will be required as part of the Part 70 Operating Permit renewal application.

State Rule Applicability

The following state rules are applicable to the source:

(1) Pursuant to 326 IAC 2-1.1-4 (Federal Provisions), in case of a conflict between the state rules and a provision of federal law or regulation, the more stringent requirement applies.

(2) 326 IAC 2-6 (Emission Reporting)
Since this source is required to have an operating permit under 326 IAC 2-7 (Part 70 Program), this source is subject to 326 IAC 2-6 (Emission Reporting).

(3) 326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity standards specified in 326 IAC 5-1.

(4) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The following table summarizes the limits pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) for each significant process:

(a) The pounds per hour limitations for the processes with maximum process weight rates of less than 60,000 pounds per hour (30 tons per hour) were calculated with the following equation:

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

(b) The pounds per hour limitations for processes with process weight rates greater than 60,000 pounds per hour (30 tons per hour) were calculated with the following 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.

The particulate control devices shall be in operation at all times in order for the facilities to comply with these limits. Based on calculations shown in Appendix A of this TSD, the facilities can comply with these limits.

Table 11 - - Allowable Particulate Emission Rates				
Process	Control Device and Vent/Stack ID *		Process Weight Rate (tons/hour)	PM Allowable Emission Rate (lbs/hour)
Cupola Charge Handling	None	- -	43.2	43.23
Cupola Melt Furnace	Wet Scrubber M	Stack M	38.0	42.06
Herman Pouring/Casting	None	Vents #27 and #28	140	54.72
Herman Cooling	None	Vents #3 and #71	140	54.72
Herman Shakeout	Wet Scrubber C	Stack C	140	54.72
Osborn Pouring/Casting	None	Vents #30 and #31	185	57.67
Osborn Cooling	None	Vents #4, #21 and #70	185	57.67
Osborn Shakeout	Wet Scrubbers B and C	Stacks B and C	185	57.67
Hotline Secondary Shakeout	Wet Scrubbers A and B	Stacks A and B	50.0	44.58
Sand Handling System	Wet Scrubbers A, B, and C	Stacks A, B, and C	269.0	61.77
Sprue and Sand Transport	Baghouse P	Stack P	7.7	16.10
South Line Core Sand Handling	Bin vent filter	- -	12.0	21.67
Center Line Core Sand Handling	Bin vent filter	- -	4.2	10.72
North Line Core Sand Handling	Bin vent filter	- -	5.1	12.21
South Mixer #1	None	Vent #53	12.0	21.67
Center Mixer #2	None	Vent #48	4.2	10.72
North Mixer #3	None	Vent #30	5.1	12.21
Tumble Blast #1	Baghouse O	Stack O	14.5	24.60
Tumble Blast #2	Baghouse O	Stack O	14.5	24.60
Tumble Blast #4	Baghouse E	Stack E	11.0	20.44
Hanger Spinner Blast #5	Baghouse E	Stack E	14.0	24.03
Hanger Spinner Blast #6	Baghouse H	Stack K	14.0	24.03
Shot Blast #7	Baghouse I	Stack I	14.0	24.03
Grinders #1 to #30	Baghouses F, G, I, and O	Stacks F, G, I, and O	4 (each)	10.38 (each)
Automatic Deburring Machine	Baghouse G	Stack G	5.5	12.85
* See table below for the PM allowable emission rates for emission units that share common control device(s).				

The following table summarizes the limits that will show compliance for emission units that share a common control device:

Table 12 - - Compliance Determination for 326 IAC 6-3			
Add-On Control Device	Operations	PM Allowable Emission Rate (lbs/hour) (326 IAC 6-3)	PM Allowable Emission Rate to Demonstrate Compliance (lbs/hour)
Wet Scrubber A	Hotline Secondary Shakeout	44.58	61.77
	Sand Handling System	61.77	
Wet Scrubber B	Osborn Shakeout	57.67	
	Hotline Secondary Shakeout	44.58	
	Sand Handling System	61.77	
Wet Scrubber C	Herman Shakeout	54.72	
	Osborn Shakeout	57.67	
	Sand Handling System	61.77	
To demonstrate compliance with the PM allowable emissions rates determine under 326 IAC 6-3, the combined PM emission from Wet Scrubbers A, B, and C shall not exceed 61.77 lbs/hour.			
Add-On Control Device	Operations	PM Allowable Emission Rate (lbs/hour) (326 IAC 6-3)	PM PSD Minor Limits (lbs/hour) **
Baghouse O	Tumble Blast #1	24.6	5.68
	Tumble Blast #2	24.6	
	Grinders #21 to #24	10.38 (each)	
Baghouse E	Tumble Blast #4	20.44	5.68
	Hanger Spinner Blast #5	24.03	
Baghouse I	Shot Blast #7	24.03	5.68
	Grinders #25 to #30	10.38 (each)	
Baghouse F	Grinders #1 to #13	10.38 (each)	5.68
Baghouse G	Grinders #14 to #20	10.38 (each)	5.68
	Automatic Deburring Machine	12.85	
** Compliance with the PM allowable emission rates under 326 IAC 6-3 is demonstrated by complying with the PM PSD Minor Limits specified for each baghouse in order to render 326 IAC 2-2 (PSD) requirements not applicable (see Table 6 of this TSD for the detailed limits).			

(5) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The Cupola Melt Furnace is subject to this rule because the cupola has the potential to emit greater than 25 tons per year or 10 pounds per hour of SO_2; however, there are no applicable requirements for the furnace.

(6) 326 IAC 8-1-6 (General Reduction Requirements for New Facilities)

(a) Cupola Melt Furnace - - constructed in 1970 and modified in 1984
The Cupola Melt Furnace is not subject to the VOC BACT requirements of 326 IAC 8-1-6, because it was constructed prior to January 1, 1980.

There are no other 326 IAC 8 rules applicable.

(b) Herman Line - - constructed in 1970
The Herman Line is not subject to the VOC BACT requirements of 326 IAC 8-1-6, because it was constructed prior to January 1, 1980.

(c) Osborn Line - - constructed in 1984
Even though the VOC potential emissions of the Osborn Line are greater than 25 tons per year, on November 20, 2003, the Marion County Superior Court ruled that new additional applicable requirements, such as the VOC BACT requirements under 326 IAC 8-1-6 are not applicable to this line. However, this court decision does not preclude this line from applicable requirements for future modifications.

(d) Hotline Secondary Shakeout - - constructed in 1954
The Hotline Secondary Shakeout is not subject to the VOC BACT requirements of 326 IAC 8-1-6, because it was constructed prior to January 1, 1980.

(e) Mixers

(1) South Mixer #1 - - constructed in 1981
The VOC potential emissions of the South Mixer #1, constructed in 1981, are less than 25 tons per year. Therefore, the VOC BACT requirements under 326 IAC 8-1-6 do not apply.

VOC = 20.13 tons/year
(See Table 16 of the Appendix A of this TSD for the calculations)

(2) Center Mixer #2 - - constructed in 1979
The Center Mixer #2 is not subject to the VOC BACT requirements of 326 IAC 8-1-6, because it was constructed prior to January 1, 1980.

(3) North Mixer #3 - - constructed in 1964
The North Mixer #3 is not subject to the VOC BACT requirements of 326 IAC 8-1-6, because it was constructed prior to January 1, 1980.

(f) Core Machines - - constructed prior to 1980
The following core machines are not to the VOC BACT requirements of 326 IAC 8-1-6, because they were constructed prior to January 1, 1980.
(1) Core Machine #21, constructed in 1968,
(2) Core Machine #23, constructed in 1968,
(3) Core Machine #31, constructed in 1977,
(4) Core Machine #10, constructed in 1977,

(5) Core Machine #12, constructed in 1977, and
(6) Core Machine #32, constructed in 1979,

There are no other 326 IAC 8 rules applicable.

(g) Core Machines - - constructed after 1980
The VOC potential emissions (before control) from each of the following core machines are greater than 25 tons per year. The VOC emissions from each core machine will be limited to less than 25 tons per year in order to render the VOC BACT requirements under 326 IAC 8-1-6 not applicable.

Table 13 - - Limits to Render 326 IAC 8-1-6 Not Applicable

Core Machine ID	No Limits		Limits to Render 326 IAC 8-1-6 Not Applicable	
	Nominal Capacity (tons/year)	VOC Potential Emissions (tons/year)	Limited Throughput (tons/year)	Limited VOC Emissions (tons/year)
Core Machine #30 (1981)	26,280	69.09	9,472	24.9
Core Machine #15 (1982)	26,280	69.09	9,472	24.9
Core Machine #13 (1983)	26,280	69.09	9,472	24.9
Core Machine #14 (1995)	26,280	69.09	9,472	24.9
Core Machine #11 (1996)	26,280	69.09	9,472	24.9
Core Machine #16 (2000) *	26,280	69.09	9,472	24.9

Nominal Throughput of Each Core Machine = 3.0 tons/hour = 26,280 tons/year

VOC Potential Emissions = (26,280 tons/hour nominal capacity)*(Emission Factor 5.258 lbs/ton)
*(1 ton/2000 lbs) = tons/year

See Table 17 of Appendix A of this TSD for the detailed emission factors.

Limited Throughput = (26,280 tons/year)*(24.9 tons/year)/(69.09 tons/year)
= 9,471.3 tons/year

TEA input Limit = (4.2 lbs/ton)*(9,472 tons/year)/(1 ton/2000 lbs) = 19.9 tons/year

* Core Machine #16 was initially permitted in Permit 113-16474-00004, issued on February 5, 2003. No sand throughput was specified in this existing permit. Based on the re-evaluation of the VOC emissions, this is the new sand throughput limit for Core Machine #16.

(h) Core Machine #33 - - constructed in 2000
The Core Machine #33 was permitted under Permit Modification 113-16474-00004, issued on February 5, 2003, such that the VOC BACT requirements of 326 IAC 8-1-6 do not apply. Existing limits indicated in this air approval will be incorporated into the Part 70 Operating Permit.

The sand throughput to the Core Machine #33 shall not exceed 7,000 tons per 12 consecutive month period.

(7) 326 IAC 9-1-2 (CO Emissions)
Pursuant to 326 IAC 9-1 (Carbon Monoxide Emission Limits) the CO emissions from the Cupola Melt Furnace shall be controlled by a direct-flame afterburner that maintains a minimum temperature of one thousand three hundred (1,300) degrees Fahrenheit for a minimum retention time of three-tenths (0.3) second.

(8) 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)
The parts washers are subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control).

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 (part 70 Program) 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 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. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring Requirements would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

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

(1) Daily visible emission notations will be required for each exhaust stack.

(2) Operating parameters of the wet scrubbers, acid scrubber, and baghouses will be monitored on a routine basis.

(3) Compliance testing will be required for significant emission units on a routine basis.

Conclusion and Recommendation

(1) The operation of this gray iron foundry shall be subject to the conditions of the attached proposed Part 70 Permit No. **113-6491-00004.**

(2) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on August 30, 1996. Additional information was received on October 15, 1998, September 19, 2000, and March 2, 2006.

A notice of completeness letter was mailed to the source on October 29, 1996.

(3) The OAQ staff recommends to the IDEM's Commissioner that this approval to operate be approved.

(4) Copies of the application and preliminary findings have been provided to the Kendallville Public Library, 126 West Rush Street, Kendallville, IN 46755.

(5) A copy of the preliminary findings is also available on the Internet at: www.IN.gov/idem/air/permits/Air-Permits-Online.

IDEM Contact

Questions regarding this proposed permit can be directed to Ms. Iryn Calilung at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204 or by telephone at (317) 233-5692 or toll free at 1-800-451-6027 extension 3-5692.

For additional information about air permits and how the public can participate, see IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.IN.gov/idem/guides.

Indiana Department of Environmental Management
Office of Air Quality

Appendix A - Emissions Calculations
Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	**Dalton Corporation, Kendallville Manufacturing Facility**
Source Location:	200 West Ohio Street, Kendallville, Indiana 46755
Mailing Address:	P.O. Box 271, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3321
Part 70 Operation Permit No.:	**113-6491-00004**
Source Status:	Major Source, under PSD Rules Major Source, under Section 112 of CAA One of 28 Listed Source Categories
Permit Writer:	Iryn Calilung 317/233-5692

Potential to Emit of the Entire Source

The following table summarizes the potential to emit (PTE) after control (if applicable) of the entire source, based on the calculations shown in this Appendix A of the TSD. See Table 6 of the TSD for the limited PTE.

Table 1 - - Potential to Emit After Control (tons/year)

Process/facility	PM	PM_{10}	SO_2	NO_X	VOC	CO	Lead
Cupola Charge Handling (1970 and 1984) No Control (NC)	113.5	68.1	0	0	0	0	0.378
Cupola Melt Furnace (1970 and 1984) Wet Scrubber M and Afterburners	87.5	142.4	208.1	16.6	30.0	2413.4	0.333
Herman Pouring/Casting (1970) (NC)	245.28	180.46	1.75	0.876	12.26	101.88	1.4
Herman Cooling (1970) (NC)	122.64	122.64	0	0	60.18	164.86	
Osborn Pouring/Casting (1984) (NC)	306.6	225.6	2.2	1.1	15.3	127.35	1.75
Osborn Cooling (1984) (NC)	153.3	153.3	0	0	75.23	206.08	0
Herman Shakeout (1970) Wet Scrubber C	19.34	13.54	0	0	105.12	3539.35	0.016
Osborn Shakeout (1984) Wet Scrubbers B and C	24.2	16.9	0	0	131.4		0.02
Hotline Secondary Shakeout (1954) Wet Scrubbers A and B	48.4	33.9	0	0	262.8		0.039
Sand Handling System (1984) Wet Scrubbers A, B, and C	292.7	43.9	0	0	0	0	0
Sprue and Sand Transport (1984) Baghouse P	8.4	1.3	0	0	0	0	0

Table 1 - - Potential to Emit After Control (tons/year)								
Process/facility		PM	PM_{10}	SO_2	NO_X	VOC	CO	Lead
South Line Core Sand Handling (1981) Bin Vent		71.17	41.52	0	0	0	0	0
Center Line Core Sand Handling (1979) Bin Vent		24.9	14.53	0	0	0	0	0
North Line Core Sand Handling (1964) Bin Vent		30.24	17.65	0	0	0	0	0
South Mixer #1 (1981) (NC)		0	0	0	0	20.13	0	0
Center Mixer #2 (1979) (NC)		0	0	0	0	7.04	0	0
North Mixer #3 (1964) (NC)		0	0	0	0	8.55	0	0
Core Machine #10 (1977)	A	0	0	0	0	13.9	0	0
Core Machine #11 (1996)	c	0	0	0	0	13.9	0	0
Core Machine #12 (1977)	i	0	0	0	0	13.9	0	0
Core Machine #13 (1983)	d	0	0	0	0	13.9	0	0
Core Machine #14 (1995)		0	0	0	0	13.9	0	0
Core Machine #15 (1982)	S	0	0	0	0	13.9	0	0
Core Machine #16 (2000)	c	0	0	0	0	13.9	0	0
Core Machine #21 (1968)	r	0	0	0	0	13.9	0	0
Core Machine #23 (1968)	u	0	0	0	0	13.9	0	0
Core Machine #30 (1981)	b	0	0	0	0	13.9	0	0
Core Machine #31 (1977)	b	0	0	0	0	13.9	0	0
Core Machine #32 (1979)	e	0	0	0	0	13.9	0	0
Core Machine #33 (2000)	r T	0	0	0	0	13.9	0	0
Baghouse E - Tumble Blast #4 (1979) - Hanger Spinner Blast #5 (1980)		55.5	5.5	0	0	0	0	0
Baghouse F - Grinders #1 to #13 (1980)		0.1	0	0	0	0	0	0
Baghouse G - Grinders #14 to #20 (1980) - Automatic Deburring Machine (2003)		0	0	0	0	0	0	0
Baghouse H - Hanger Spinner #6 (1980)		31.1	3.1	0	0	0	0	0
Baghouse I - Shot Blast #7 (1999) - Grinders #25 to #30 (2000 and 2001)		31.1	3.1	0	0	0	0	0
Baghouse O - Tumble Blast #1 (1964) - Tumble Blast #2 (1964) - Grinders #21 to #24 (1998)		64.4	6.4	0	0	0	0	0
Total Emissions		**1730.37**	**1093.84**	**212.1**	**18.6**	**908.71**	**6552.9**	**3.9**

Cupola Charge Handling and Cupola Melt Furnace

Table 2 - - Cupola Charge Handling (1970 and modified in 1984)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	0.6	113.5	113.5
PM_{10}	0.36	68.1	68.1
SO_2	- -	- -	- -
NO_x	- -	- -	- -
VOC	- -	- -	- -
CO	- -	- -	- -
Lead	0.002	0.378	0.378

Methodology:
PTE = (43.2 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year

No Add-on Control Device

Nominal Capacity of Cupola Charge Handling = 43.2 tons/hour = 378,432 tons/year

Table 3 - - Cupola Melt Furnace (1970 and modified in 1984)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	13.62	2,266.9	87.5
PM_{10}	12.4	2,063.9	142.4
SO_2	1.25	208.1	208.1
NO_x	0.1	16.6	16.6
VOC	0.18	30.0	30.0
CO	145	24,133.8	2,413.4
Lead	0.002	0.333	0.333

Methodology:
PTE = (38.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)

PTE = (PTE before control tons/yr)*(1 - %Eff)

Wet Scrubber M and Afterburners
PM = 96.14% PM_{10} = 93.1% CO = 90%

Compliance test in 2002 confirmed an emission factor after controls to be 0.526 lb of PM per ton of iron.
Nominal Capacity of Cupola Melt Furnace = 38.0 tons/hour = 332,880 tons/year

Herman Line

Table 4 - - Herman Pouring/Casting (1970)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	2.8	245.28	245.28
PM_{10}	2.06	180.46	180.46
SO_2	0.02	1.75	1.75
NO_x	0.01	0.876	0.876
VOC	0.14	12.26	12.26
CO	1.163	101.88	101.88
Lead	0.016	1.4	1.4
Table 5 - - Herman Cooling (1970)			
PM	1.4	122.64	122.64
PM_{10}	1.4	122.64	122.64
SO_2	- -	- -	- -
NO_x	- -	- -	- -
VOC	0.687	60.18	60.18
CO	1.882	164.86	164.86
Lead	- -	- -	- -
Table 6 - - Herman Shakeout (1970)			
PM	3.2	280.32	19.34
PM_{10}	2.24	196.22	13.54
SO_2	- -	- -	- -
NO_x	- -	- -	- -
VOC	1.2	105.12	105.12
CO *	- -	- -	- -
Lead	0.00018	0.016	0.016

Methodology:
PTE = (20.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)

Wet Scrubber C for Herman Shakeout PM and PM_{10} = 93.1%

Nominal Capacity of Herman Line = 20.0 tons/hour = 175,200 tons/year

The CO emission factors are derived from stack tests conducted by Dalton Foundries using EPA approved tests methods; however, the tests were not certified by IDEM.
* See Table 11 for the CO emissions.

Osborn Line

Table 7 - - Osborn Pouring/Casting (1984)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	2.8	306.6	306.6
PM_{10}	2.06	225.6	225.6
SO_2	0.02	2.2	2.2
NO_x	0.01	1.1	1.1
VOC	0.14	15.3	15.3
CO	1.163	127.35	127.35
Lead	0.016	1.75	1.75
Table 8 - - Osborn Cooling (1984)			
PM	1.4	153.3	153.3
PM_{10}	1.4	153.3	153.3
SO_2	- -	- -	- -
NO_x	- -	- -	- -
VOC	0.687	75.23	75.23
CO	1.882	206.08	206.08
Lead	- -	- -	- -
Table 9 - - Osborn Shakeout (1984)			
PM	3.2	350.4	24.2
PM_{10}	2.24	245.3	16.9
SO_2	- -	- -	- -
NO_x	- -	- -	- -
VOC	1.2	131.4	131.4
CO *	- -	- -	- -
Lead	0.00018	0.02	0.02

Methodology:
PTE = (25.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)

Wet Scrubbers B and C for Osborn Shakeout PM and PM_{10} = 93.1%

Nominal Capacity of Osborn Line = 25.0 tons/hour = 219,000 tons/year
Nominal Capacity of Osborn Line = 160 tons/hour = 1,401,600 tons/year
The CO emission factors are derived from stack tests conducted by Dalton Foundries using EPA approved tests methods; however, the tests were not certified by IDEM.
* See Table 11 for the CO emissions.

Table 10 - - Hotline Secondary Shakeout (1954)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	3.2	700.8	48.4
PM_{10}	2.24	490.6	33.9
Lead	0.00018	0.039	0.039
VOC	1.2	262.8	262.8
CO*	- -	- -	- -

Methodology:
PTE = (50.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)

Wet Scrubbers A and B PM and PM_{10} = 93.1%
Nominal Capacity of Hotline Secondary Shakeout = 50.0 tons/hour = 438,000 tons/year

The CO emission factors are derived from stack tests conducted by Dalton Foundries using EPA approved tests methods; however, the tests were not certified by IDEM.

* See Table 11 for the CO emissions.

Table 11 - - Shakeout (Herman Shakeout, Osborn Shakeout and Hotline Secondary Shakeout)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
CO	8.506	3,539.35	3,539.35

Methodology:
PTE = (95.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)

Nominal Capacity of Herman Line = 20.0 tons/hour = 175,200 tons/year
Nominal Capacity of Osborn Line = 25.0 tons/hour = 219,000 tons/year
Nominal Capacity of Hotline Secondary Shakeout = 50.0 tons/hour = 438,000 tons/year
Total = 95 tons/hour

The CO emission factors are derived from stack tests conducted by Dalton Foundries using EPA approved methods; however, the tests were not certified by IDEM.

Table 12 - - Sand Handling System (1984)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	3.6	4,241.6	292.7
PM_{10}	0.54	636.2	43.9

Methodology:
PTE = (269.0 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)

Wet Scrubbers A, B, and C PM and PM_{10} = 93.1%

Nominal Capacity of the Sand Handling System = 269.0 tons/hour = 2,356,440 tons/year

Table 13 - - Sprue and Sand Transport System (1984)			
Pollutant	Emission Factor (lb/ton)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
PM	3.6	121.4	8.4
PM_{10}	0.54	18.2	1.3

Methodology:
PTE = (7.7 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)

Baghouse P PM and PM_{10} = 93.1%

Nominal Capacity of Sprue and Sand Transport System = 7.7 tons/hour = 67,452 tons/year

South Line, Center Line, and North Line

Table 14 - - PM Emissions from Core Sand Handling of South Line, Center Line and North Line			
Mixer ID	Nominal Capacity (tons/hour)	PM Emission Factor (lb/ton)	PTE After Control (tons/yr)
South Line Core Sand Handling	12.0	1.354	71.17
Center Line Core Sand Handling	4.2	1.354	24.9
North Line Core Sand Handling	5.1	1.354	30.24
Total			**126.31**

Methodology:
PM PTE = (tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs) *(8760 hours/yr)
= tons/year

The PM emission factors were from Permit No. 113-16474-00004, issued on February 5, 2003.
Bin Vents

Nominal Capacity of Line Core Sand Handling = 12 tons/hour = 105, 120 tons/year
Nominal Capacity of Center Line Core Sand Handling = 4.2 tons/hour = 36,792 tons/year
Nominal Capacity of North Line Core Sand Handling = 5.1 tons/hour = 44,676 tons/year

Table 15 - - PM_{10} Emissions from Core Sand Handling of South Line, Center Line and North Line			
Mixer ID	Nominal Capacity (tons/hour)	PM_{10} Emission Factor (lb/ton)	PTE After Control (tons/yr)
South Line Core Sand Handling	12.0	0.79	41.52
Center Line Core Sand Handling	4.2	0.79	14.53
North Line Core Sand Handling	5.1	0.79	17.65
Total			**73.70**

Methodology:
PM PTE = (tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs) *(8760 hours/yr)
= tons/year

The PM emission factors were from Permit No. 113-16474-00004, issued on February 5, 2003.
Bin Vents

Nominal Capacity of Line Core Sand Handling = 12 tons/hour = 105, 120 tons/year
Nominal Capacity of Center Line Core Sand Handling = 4.2 tons/hour = 36,792 tons/year
Nominal Capacity of North Line Core Sand Handling = 5.1 tons/hour = 44,676 tons/year

Table 16 - - VOC Emissions from Mixers of South Line, Center Line and North Line			
Mixer ID	Nominal Capacity (tons/hour)	VOC Emission Factor (lb/ton)	PTE Before/After Control (tons/yr)
South Mixer #1 (1981)	12.0	0.383	20.13
Center Mixer #2 (1979)	4.2	0.383	7.04
North Mixer #3 (1964)	5.1	0.383	8.55
Total		**1.149**	**35.72**

Methodology:
VOC PTE = (tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)
*(8760 hours/yr) = tons/year (before control)

The VOC emission factors were from Permit No. 113-16474-00004, issued on February 5, 2003.
No Add-Control Device

Nominal Capacity of South Mixer #1= 12 tons/hour = 105, 120 tons/year
Nominal Capacity of Center Mixer #2 = 4.2 tons/hour = 36,792 tons/year
Nominal Capacity of North Mixer #3 = 5.1 tons/hour = 44,676 tons/year

Table 17 - - Core Machines VOC Emission Factors		
Core Machines	VOC Emission Factor (lb/ton)	
	Before Control	After Control
Catalyst (TEA)	4.2	0.0001
Non-TEA		
Resin	0.82	0.82
Core Wash	0	0
Parts Spray	0.162	0.162
Core Box Cleaner	0.076	0.076
Total	**5.258**	**1.059**

These emission factors are from Permit No. 113-16474-00004, issued on February 5, 2003.

Table 18 - - VOC Emissions from Core Machines of South Line			
Core Machine ID	Nominal Capacity (tons/hour)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
Core Machine #30 (1981)	3.0	69.09	13.9
Core Machine #31 (1977)	3.0	69.09	13.9
Core Machine #32 (1979)	3.0	69.09	13.9
Core Machine #33 (2000)	3.0	69.09	13.9
Total		**276.36**	**55.6**

Table 19 - - VOC Emissions from Core Machines of Center Line			
Core Machine ID	Nominal Capacity (tons/hour)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
Core Machine #10 (1977)	3.0	69.09	13.9
Core Machine #11 (1996)	3.0	69.09	13.9
Core Machine #12 (1977)	3.0	69.09	13.9
Core Machine #13 (1983)	3.0	69.09	13.9
Total		**276.36**	**55.6**

Table 20 - - VOC Emissions from Core Machines of North Line			
Core Machine ID	Nominal Capacity (tons/hour)	PTE Before Control (tons/yr)	PTE After Control (tons/yr)
Core Machine #14 (1995)	3.0	69.09	13.9
Core Machine #15 (1982)	3.0	69.09	13.9
Core Machine #16 (2000)	3.0	69.09	13.9
Core Machine #21 (1968)	3.0	69.09	13.9
Core Machine #23 (1968)	3.0	69.09	13.9
Total		**345.45**	**69.5**
Total (Core Machines of South Line, Center Line, and North Line		**898.17**	**180.7**

Methodology:
VOC PTE = (3 tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs) *(8760 hours/yr) = tons/year

Acid Scrubber T

Nominal Capacity of Each Core Machine = 3.0 tons/hour = 26, 280 tons/year

Table 21 - - Particulate Emissions from Shot Blast Machines, Grinders, and Automatic Deburring Machine

ID	Nominal Capacity (tons/hour)	Emission Factor (lb/ton)		PTE Before Control (tons/year)		PTE After Control (tons/year)	
		PM	PM_{10}	PM	PM_{10}	PM	PM_{10}
Tumble Blast #1 Baghouse O	14.5	17	1.7	1079.7	108.0	32.2	3.2
Tumble Blast #2 Baghouse O	14.5	17	1.7	1079.7	108.0	32.2	3.2
Tumble Blast #4 Baghouse E	11.0	17	1.7	819.1	81.9	24.4	2.4
Hanger Spinner Blast #5 Baghouse E	14.0	17	1.7	1042.4	104.2	31.1	3.1
Hanger Spinner Blast #6 Baghouse H	14.0	17	1.7	1042.4	104.2	31.1	3.1
Shot Blast #7 Baghouse I	14.0	17	1.7	1042.4	104.2	31.1	3.1
Grinders #1 to #13 Baghouse F	4 (each) 52 (total)	0.01	0.0045	2.3	1.0	0.1	0
Grinders #14 to #20 Baghouse G	4 (each) 28 (total)	0.01	0.0045	1.2	0.6	0	0
Grinders #21 to #24 Baghouse O	4 (each) 16 (total)	0.01	0.0045	0.7	0.3	0	0
Grinders #25 to #30 Baghouse I	4 (each) 24 (total)	0.01	0.0045	1.1	0.5	0	0
Automatic Deburring Machine Baghouse G	5.5	0.01	0.0045	0.2	**0.1**	**0**	**0**
Total				**6111.20**	**613.00**	**182.20**	**18.10**

Methodology:
PTE = (tons/hour nominal capacity)*(Emission Factor lb/ton)*(1 ton/2000 lbs)*(8760 hours/yr)
= tons/year (before control)
PTE = (PTE before control tons/yr)*(1 - %Eff)
Control Efficiency of Each Baghouse = 97.02%