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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 19, 2012

RE: Navistar, Inc. / 097 - 30905 - 00039

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot12/3/07

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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Navistar, Inc
5565 Brookville Road
Indianapolis, Indiana 46219

(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 2-7-10.5, applicable to those conditions

Operation Permit No.: 097-30905-00039	
Issued by: Tripurari Sinha Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 19, 2012 Expiration Date: April 19, 2017

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

Attachment A: NESHAP 40 CFR 63, Subpart EEEEE

Attachment B: NESHAP 40 CFR 63, Subpart ZZZZ

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary grey iron foundry, metal machining operations, engine testing, and engine assembly source.

Source Address:	5565 Brookville Road, Indianapolis, Indiana 46219
General Source Phone Number:	317-352-4500
SIC Code:	3321 and 3519
County Location:	Marion
Source Location Status:	Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, under NA NSR for PM2.5 Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

Coremaking Operations

(a) One (1) sand receiving and handling system, identified as emission unit EU-F01, constructed in 1962, with a maximum capacity of one hundred twenty (120) tons of sand per hour, with portions of the sand receiving and handling system's emissions controlled by the "Snow Room" dust collector, and exhausting through stack SV-10A.

(b) Thirteen (13) cold box core machines, each with its own mixer, collectively identified as emission unit EU-F02, using a two (2) part phenolic urethane resin system with a nominal resin content of 2.5% and an amine gas as a catalyst with a nominal usage rate of 1.9 pounds per ton of cores to activate the resin to produce the finished product, with emissions controlled by wet scrubbers #2, #3, #4, and #5, and exhausting through stacks SV-11A, SV-11B, SV-11C, and SV-12. The individual cold box core machines have the following construction dates and capacities.

Machine	Machine Description	Construction Date	Capacity (tons of cores/hr)	Scrubber ID	Stack Vent ID
EU-F02H	5050 EAST	1989	9.3	#2	SV-11C
EU-F02B	CB30	1977	6.05	#2	
EU-F02I	5050 WEST	1989	3.5	#2	
EU-F02D	4040 #2	1985	2.18	#3	SV-11B
EU-F02K	4040 #3	1991	3.07	#3	
EU-F02L	4040 #4	1991	3.5	#3	
EU-F02A	NORTH ISOCURE	1977	2.77	#4	SV-11A
EU-F02C	SOUTH ISOCURE	1979	2.77	#4	
EU-F02E	3540 NORTH	1988	1.96	#5	SV-12
EU-F02F	4040 #5	1989	1.74	#5	
EU-F02G	4040 #6	1989	1.74	#5	
EU-F02J	3540 SOUTH	1990	1.67	#5	
EU-F02M	4040 #7	1995	1.74	#5	

EU-F02 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(c) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

(1) Three (3) sand receiving bins, identified as emission units EU-28B, EU-28C, and EU-28D, with emissions controlled by one dust collector below 4,000 acfm, and exhausting through stack SV-28B.

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by wet scrubber #1, and exhausting through stack SV-28A.

EU-28A is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

Melting Operations

(d) One (1) Phase I melting process, collectively identified as emission unit EU-F04, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase I, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #1, #2, and #3, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-1 Baghouse which exhausts through stack SV-14. This baghouse does not control emissions from the ladles. The Phase I scrap preheater and electric induction furnaces #1, #2, and #3 associated with EU-F04 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(e) One (1) Phase II melting process, collectively identified as emission unit EU-F05, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase II, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #4, #5 and #6, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-2 Baghouse which exhausts through stack SV-15. This baghouse does not control emissions from the ladles. The Phase II scrap preheater and electric induction furnaces #4, #5, and #6 associated with EU-F05 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(f) One (1) Phase III melting process, collectively identified as EU-F19, constructed in 1998, with a maximum charge capacity of twenty-five (25) tons of metal per hour, comprised of the following:

(1) One (1) natural gas fired Phase III dryer, identified as EU-F19A, with a maximum heat input capacity of seven hundred fifty thousand (750,000) British thermal units per hour; and

(2) Two (2) grey iron electric induction furnaces, constructed in 1998 and 1999, respectively, collectively identified as EU-F19B, with a maximum melt rate of twenty-five (25) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation, identified as EU-F19C; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions from these units are controlled by two baghouses identified as EM-3 baghouse constructed in 2000 and EM-3B baghouse constructed in 2006. The EM-3 baghouse controls the two induction furnaces (EU-F19B) and exhausts through stack SV-33. The

EM-3B baghouse controls the Phase III dryer (EU-F19A) and exhausts through stack SV-33a. These baghouses do not control emissions from the ladles. EU-F19B is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

Molding, Pouring/Cooling and Sand Handling Operations

(g) One (1) M3 molding line, identified as emission unit EU-F06, constructed in 1976, consisting of casting punch out, casting shakeout, a storage hopper and a sand muller, with a maximum capacity of sixty (60) tons of casting per hour, with emissions controlled by the M3 Baghouse which exhausts through stacks SV-16a and SV-16b.

(h) One (1) M3 mold casting cooling (Fume Tunnel M3) operation, identified as emission unit EU-F07, constructed in 1974, with a maximum capacity of sixty (60) tons of casting per hour, with emissions uncontrolled, and exhausting through stacks SV-17A East, SV 17-A West, SV17-B, SV-17C East, SV-17C West, SV-17D, SV-17E and SV-27A.

(i) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B. EU-F08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(j) One (1) M1 mold casting cooling (Fume Tunnel M1) operation, identified as emission unit EU-F09, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B.

(k) One (1) molding operation, identified as emission unit EU-F10, constructed in 1976, consisting of the M1 sand system and M1 sand cooler and M1 and M3 casting cooling, with maximum sand throughput of one hundred fifty (150) tons per hour, with emissions controlled by the Phase III South baghouse and the Phase V baghouse, and exhausting through stacks SV-20A through SV-20B and stacks SV-23 a, b, and c respectively.

(l) The M3 sand cooler system, identified as emission unit EU-F10A, constructed in 1976 with a nominal sand throughput of three hundred thirty (330) tons per hour and a maximum capacity of five hundred (500) tons per hour, with emissions controlled by the Phase III North baghouse and exhausting through Stack SV-20c.

(m) One (1) casting vibratory conveyor and casting cooling operation, identified as emission unit EU-F11, constructed in 1977, consisting of casting punch out, shakers, casting shakeout, and casting cooling, with a maximum capacity of ninety (90) tons of metal poured per hour, with emissions controlled by the Phase IV baghouse, and exhausting through stacks SV-21A through SV-21D.

(n) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A through SV-27C. EU-F17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation modified in 2011 includes: One Compacted Graphite Iron (CGI) ladle metallurgy process, consisting of two stations; with a capacity of 30 tons/hour, 80%

of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-35. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

Note: CGI molds will be poured at the existing M-1 pouring station with a maximum capacity of 30 tons per hour and then will return to the M-3 mold pouring operation.

Casting Cleaning and Finishing Operations

(o) One (1) casting cleaning operation, identified as emission unit EU-F12, constructed in 1989, consisting of a V shot blast machine, with a nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase VII baghouse, and exhausting through stack SV-22.

(p) One (1) casting cleaning operation, identified as emission unit EU-F13, constructed in 1978, consisting of the I-Block grinder and the V-Block grinder, with a combined nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase V baghouse, and exhausting through stacks SV-23A through SV-23C.

(q) One (1) I-Shot blast machine, identified as emission unit EU-F14, constructed in 1989, with a nominal capacity of 27.1 tons per hour, with emissions controlled by the Phase VI baghouse, and exhausting through stack SV-24.

(r) One (1) casting cleaning operation, identified as emission unit EU-F15, constructed in 1975 and modified in 2000, with a nominal capacity of 10.7 tons per hour, consisting of one (1) grinder and one (1) BMD separator, with emissions controlled by the Phase I baghouse, and exhausting through stacks SV-25A and SV-25B.

(s) One (1) waste sand handling operation, identified as emission unit EU-F16, constructed in 1996, consisting of sand storage silos, dump hoppers, and a sand dump, with a maximum capacity of one hundred (100) tons of sand per hour, with emissions controlled by the Phase VIII baghouse, and exhausting through stack SV-34.

Engine Plant Grinding/Broaching Operation

(t) One (1) head grinding operation, identified as EU-F06N, constructed in 2003, with a rated capacity of five (5) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-06N, when not redirected to exhaust indoors.

(u) One (1) block broaching operation, identified as EU-F07N, constructed in 2003, with a rated capacity of ten (10) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-07N, when not redirected to exhaust indoors.

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

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

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

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

(c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five tenths (0.5) percent sulfur by weight:

(1) One (1) distillate oil-fired boiler, for emergency purposes only, identified as IS-E02, constructed in 1974, located in pump house building #37, with a maximum capacity of 1.5 million British thermal units per hour. [326 IAC 6.5-1-2(b)(2)]

(d) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment. [326 IAC 2-7-1(21)(G)(ii)(AA)]

(e) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 2-7-1(21)(G)(ii)(BB)]

(f) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower which include the following:

(1) One (1) stand-by diesel generator, identified as IS-E05, with a maximum capacity of 325 horse power, respectively. [326 IAC 6.5-1-2]

(g) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone which include the following:

(1) Two (2) trimmers, identified as IS-E06 and IS-E07, equipped with a dust collector. [326 IAC 6.5-1-2]

(h) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations which include the following:

(1) Core sand hopper and mixing operations, identified as IS-F04, which take place immediately upstream of the cold box core machines. [326 IAC 6.5-1-2]

(2) Two (2) sand storage silos and three (3) bond storage silos, collectively identified as IS-F01. [326 IAC 6.5-1-2]

(3) Batch sand mullers and one (1) sand heater. [326 IAC 6.5-1-2]

(4) Core sand storage in buildings. [326 IAC 6.5-1-2]

(i) Emission units with PM and PM10 emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year which include the following:

(1) One (1) miscellaneous grinding operation, identified as IS-E03, controlled by multi-clones and vented inside. [326 IAC 6.5-1-2]

(2) Laser welders. [326 IAC 6.5-1-2]

(3) Induction Hardening heat treatment operations. [326 IAC 6.5-1-2]

(4) Holding furnaces. [326 IAC 6.5-1-2]

(5) CNC machines

(j) Research and Development activities conducted under close supervision of technically trained personnel that are not engaged in the manufacture of products for sale, exchange for commercial profit, or distribution which include the following:

(1) One (1) 500 kW electric furnace, identified as IS-F05, with a 1,000 pound per hour capacity. [326 IAC 6.5-1-2]

(k) Noncontact cooling tower systems with natural draft not regulated under a NESHAP. [326 IAC 6.5-1-2]

(l) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour which include the following:

(1) Five (5) natural gas-fired drying ovens located with the cold box core machines collectively identified as emission unit EU-F02.

(2) One (1) natural gas-fired drying oven rated at 3.60 MMBtu/hr located with the Loramendi core line identified as emission unit EU-28. [326 IAC 6.5-1-2]

(3) One (1) 2.5 MMBtu/hr Hagan Oven, identified as EU-F21. [326 IAC 6.5-1-2]

(m) Brazing, cutting torches, soldering and welding activities not resulting in the emission of HAP. [326 IAC 6.5-1-2]

A.4 Non-Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)]

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

(a) Slag removal from ladles, corebox cleaning, ladle preheater area, slag dumping, ladle relining, refractory application, core debining, core assembly, pattern cleaning and refuse sand loading.

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

(c) Combustion source flame safety purging on startup. [326 IAC 2-7-1(21)(G)(i)(CC)]

(d) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons. [326 IAC 2-7-1(21)(G)(iii)(AA)]

(2) Vessels storing the following: lubricating oils, hydraulic oils, machining oils or machining fluids. [326 IAC 2-7-1(21)(G)(iii)(BB)]

(e) Refractory storage not requiring air pollution control equipment. [326 IAC 2-7-1(21)(G)(iv)]

(f) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels [326 IAC 2-7-1(21)(K)(i)(AA):

(1) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.

(2) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight.

(3) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

(g) Application of oils, greases, lubricants and other nonvolatile material as temporary protective coatings. [326 IAC 2-7-1(21)(G)(vi)(AA)]

(h) Machining where an aqueous cutting coolant continuously floods the machining interface. [326 IAC 2-7-1(21)(G)(vi)(BB)]

(i) Cleaners and solvents:

(1) Having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or

(2) Having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit) the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months. [326 IAC 2-7-1(21)(G)(vi)(DD)]

(j) Closed loop heating and cooling systems. [326 IAC 2-7-1(21)(G)(vi)(FF)]

(k) Infrared cure equipment. [326 IAC 2-7-1(21)(G)(vi)(GG)]

(l) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs. [326 IAC 2-7-1(21)(G)(ix)(DD)]

(m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment. [326 IAC 2-7-1(21)(G)(x)(AA)]

(n) Routine 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, including the following:

(1) Purging of gas lines.

(2) Purging of vessels. [326 IAC 2-7-1(21)(G)(xvii)]

(o) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

(1) Catch tanks,

(2) Temporary liquid separators,

(3) Tanks, and

(4) Fluid handling equipment. [326 IAC 2-7-1(21)(G)(xix)]

(p) On-site fire and emergency response training approved by IDEM. [326 IAC 2-7-1(21)(G)(xxii)(AA)]

(q) Stationary fire pumps. [326 IAC 2-7-1(21)(G)(xxii)(CC)]

(r) Purge double block and bleed valves. [326 IAC 2-7-1(21)(G)(xxiv)]

(s) Filter or coalescer media changeout. [326 IAC 2-7-1(21)(G)(xxv)]

(t) Mold release agents using low volatile products (vapor pressure less than or equal to two (2) kilo Pascals measured at thirty-eight (38) degrees Centigrade). [326 IAC 2-7-1(21)(G)(xxii)]

(u) Heat exchanger cleaning and repair [326 IAC 2-7-1 (21)(G)(X)(BB)]

(v) Blowdown from sight glasses; boilers; compressors; pumps and cooling towers [326 IAC 2-7-1(21)(G)(xx)]

(w) Furnaces used for melting metals other than beryllium with a brim full capacity equal to or less than four hundred fifty (450) cubic meters by volume [326 IAC 2-7-1(21)(G)(xxi)].

(x) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume [326 IAC 2-7-1(21)(G)(ix)(AA)].

(y) Water-based adhesives that are less than or equal to five percent (5%) by volume of VOCs excluding HAPs. [326 IAC 2-7-1(21)(G)(ix)(EE)].

(z) Noncontact cooling towers with forced or induced draft systems not regulated by a NESHAP. [326 IAC 2-7-1(21)(G)(ix)(FF)(bb)].

(aa) Quenching operations used with heat treating processes [326 IAC 2-7-1(21)(G)(ix)(GG)]

(bb) Two (2) 4,500 gallon phenolic urethane resin storage tanks identified as IS-20 and IS-21, each constructed in 1987, and one (1) 6,800 gallon Part II isocyanate resin storage tank identified as IS-22 constructed in 1985.

(cc) Routine 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, including:

One (1) woodworking operation controlled by a cyclone

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, 097-30905-00039, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

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

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

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

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

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, no later than four (4) daytime business hours after the beginning of the

emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

no later than two (2) working days of the time when emission limitations were exceeded due to the emergency.

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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 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 lasting one (1) hour or more in the Quarterly Deviation and Compliance Monitoring Report unless the emergency report made pursuant to Condition B.11(b)(5) included a certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

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

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

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

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

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

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

(h) In addition to the nonapplicability determinations set forth in Section D of this permit, the IDEM, OAQ has made the following determinations regarding this source:

(1) 40 CFR 60.40c, Subpart Dc - Standards of Performance of Small Industrial-Commercial-Institutional Steam Generating Units.

The conversion of the boilers, identified as EU-01A, EU-01B and EU-01C from firing coal to firing natural gas in 1993 did not constitute a modification or reconstruction pursuant to 40 CFR § 60.2.

(2) New Source Performance Standards for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR Part 60, Subpart Kb].

Storage tanks IS-20, IS-21 and IS-22 each has a storage capacity less than seventy-five (75) cubic meters and, therefore, are not affected facilities and are exempt from the general provisions of 40 CFR Part 60, Subpart A, and from the provisions of 40 CFR Part 60, Subpart Kb, pursuant to 40 CFR § 60.110b.

(3) 326 IAC 2-4.1 (New Source Toxics Control).
The requirements of this rule do not apply to emission units constructed prior to the July 27, 1997 applicability date. The following emission units constructed or modified after July 27, 1997, identified as EU-F06N, EU-F07N, EU-F15, EU-F19, EU-28B, EU-28C, EU-28D, IS-E02, IS-E03, IS-E04, IS-E05, IS-E06, IS-E07, IS-F01 IS-F04, IS-F05, IS-20, and IS-21, each do not have a potential to emit

greater than ten (10) tons per year of a single HAP or a potential to emit twenty-five (25) tons per year of combined HAP. Therefore, the requirements of this rule do not apply to this source.

(4) Emission Standards for Hazardous Air Pollutants for Organic Liquid Distribution [326 IAC 20-83-1] [40 CFR Part 63, Subpart EEEE]

40 CFR § 63.2343 contains notification, recordkeeping, and reporting requirements for emission sources identified in 40 CFR § 63.2338 that do not require control under the rule. The two phenolic urethane resin storage tanks identified as IS-20 and IS-21 are not subject to control under the rule because they have capacities less than 5,000 gallons. Pursuant to 40 CFR § 63.2343(a), Permittee must keep documentation that verifies that IS-20 and IS-21 are each not required to be controlled. Documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR § 63.10(b)(1), including records stored in electronic form in a separate location. (For purposes of IS-20 and IS-21, the documentation may consist of identification of the tanks on a plant site plan or process and instrumentation diagram (P & ID)). The Part II isocyanate resin storage tank, identified as IS-22, is not subject to Subpart EEEE because the Part II isocyanate resin has an annual average true vapor pressure of less than 0.7 kilopascals (0.1 psia).

(5) Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82-1] [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR § 63.6585, Reciprocating Internal Combustion Engines (RICE) that are being tested at a stationary RICE test cell/stand are exempt from 40 CFR Part 63, Subparts A and ZZZZ. The only other RICE used by Permittee are two (2) stand-by diesel generators, identified as IS-E04 and IS-E05, which are used only for emergency purposes, and these RICE were constructed before December 19, 2002 and have not been reconstructed since that date. Permittee's RICE, identified as IS-E04 and IS-E05, used for emergency purposes are subject to Subpart ZZZZ; however, because IS-E04 and IS-E05 are existing RICE used for emergency purposes, they are not subject to any emission limitations or other requirements under Subpart ZZZZ and are exempt from the initial notification and other requirements of 40 CFR Part 63, Subpart A, pursuant to 40 CFR § 63.6590.

(6) National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands [326 IAC 20-75-1][40 CFR Part 63, Subpart PPPPP]

The engine test cells/stand identified as EU-E03E, are subject to 40 CFR 63, Subpart PPPPP.

Because the Permittee commenced construction or reconstruction of the engine test cells/stands, identified as emission unit EU-E03E and the four (4) cold engine test cells with the ability to perform both cold engine tests and cylinder contribution audits, prior to May 14, 2002, the standard for engine test

cells/stands does not include any limitations for existing affected sources, and all of these engine test cells/stands are part of the existing affected source. While the standard is applicable, there are no technical or administrative requirements that apply pursuant to 40 CFR § 63.9290. The facility is also not required to file the initial notification and is not subject to the other requirements of 40 CFR Part 63, Subpart A, pursuant to 40 CFR § 63.9290(b).

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

(a) All terms and conditions of permits established prior to 097-30905-00039 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 combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

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

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

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

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

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

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

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

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

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

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

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

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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 Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.7 Performance Testing [326 IAC 3-6]

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

C.8 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.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.10 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.11 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 Permittee must comply with the applicable requirements of 40 CFR 68.

C.12 Response to Abnormal or Out-of-Range Compliance Monitoring Measurements [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting a measurement required by a compliance monitoring condition of this permit that is outside the normal or usual range of values for the monitoring parameter, the Permittee shall take reasonable steps to restore operation of the emissions unit(s) (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

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

(1) initial inspection and evaluation;

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

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

(c) A determination of whether the Permittee has used acceptable procedures in response to a measurement indicating abnormal or out-of-range values will be based on information available, which may include, but is not necessarily limited to, the following:

(1) monitoring results;

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

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

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

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

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.14 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit no later than 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:

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

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

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.15 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

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

(1) 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)(iii); and

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

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

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

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

C.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

(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 except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue

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

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

(d) 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.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) 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).

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

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

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

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

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

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management

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

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

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(g) One (1) sand handling system, identified as emission unit EU-F01, constructed in 1962, with a maximum capacity of one hundred twenty (120) tons of sand per hour, with emissions controlled by the "Snow Room" dust collector, and exhausting through stack SV-10A.

(h) Thirteen (13) cold box core machines, each with its own mixer, collectively identified as emission unit EU-F02, using a two (2) part phenolic urethane resin system with a nominal resin content of 2.5% and an amine gas as a catalyst with a nominal usage rate of 1.9 pounds per ton of cores to activate the resin to produce the finished product, with emissions controlled by wet scrubbers #2, #3, #4, and #5, and exhausting through stacks SV-11A, SV-11B, SV-11C, and SV-12. The individual cold box core machines have the following construction dates and capacities.

Machine	Machine Description	Construction Date	Capacity (tons of cores/hr)	Scrubber ID	Stack Vent ID
EU-F02H	5050 EAST	1989	9.3	#2	SV-11C
EU-F02B	CB30	1977	6.05	#2	
EU-F02I	5050 WEST	1989	3.5	#2	
EU-F02D	4040 #2	1985	2.18	#3	SV-11B
EU-F02K	4040 #3	1991	3.07	#3	
EU-F02L	4040 #4	1991	3.5	#3	
EU-F02A	NORTH ISOCURE	1977	2.77	#4	SV-11A
EU-F02C	SOUTH ISOCURE	1979	2.77	#4	
EU-F02E	3540 NORTH	1988	1.96	#5	SV-12
EU-F02F	4040 #5	1989	1.74	#5	
EU-F02G	4040 #6	1989	1.74	#5	
EU-F02J	3540 SOUTH	1990	1.67	#5	
EU-F02M	4040 #7	1995	1.74	#5	

EU-F02 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(i) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

(1) Three (3) sand receiving bins, identified as emission units EU-28B, EU-28C, and EU-28D, with emissions controlled by one dust collector below 4,000 acfm, and exhausting through stack SV-28B.

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by wet scrubber #1, and exhausting through stack SV-28A.

EU-28A is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(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 VOC Emissions [326 IAC 2-2][326 IAC 2-3][326 IAC 8-1-6] [326 IAC 20][40 CFR 63, Subpart EEEEE]

Pursuant to EPA Order EPA-5-05-IN-13, signed on September 30, 2005, the Permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE) as provided in Section E.1 of this permit for the thirteen (13) cold box core machines collectively identified as emission unit EU-F02, on and after December 1, 2005, regardless of whether triethylamine (TEA) gas or a non-TEA gas is used as the catalyst in connection with EU-F02. Compliance with this condition, satisfies compliance with Prevention of Significant Deterioration (326 IAC 2-2), Emission Offset (326 IAC 2-3), and Best Available Control Technology (326 IAC 8-1-6) for VOC from the 13 cold box core machines (EU-F02).

D.1.2 VOC and HAP Emission Limitations [326 IAC 2-2] [326 IAC 2-4.1] [326 IAC 8-1-6]

The Permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE) as provided in Section E.1 of this permit for coldbox core machine (EU-28A), regardless of whether triethylamine (TEA) gas or a non-TEA gas is used as the catalyst in connection with EU-F28A. Compliance with this condition satisfies the requirements of 326 IAC 8-1-6. Compliance with this condition shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable to the modification consisting of the construction of the core line.

D.1.3 PSD Minor Limit [326 IAC 2-2]

The PM and PM10 emissions from the sand receiving bins (EU-28B, EU-28C, and EU-28D) combined shall not exceed 3.0 pounds per hour. Compliance with these limitations will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification consisting of the construction of the core line constructed in 1999.

D.1.4 Particulate Emission Limitations [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), particulate emissions from the sand handling system (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) shall each not exceed 0.03 grains per dry standard cubic foot.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP) is required for the 'Snow Room" Dust Collector. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

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

In order to ensure compliance with Conditions D.1.3 and D.1.4, the "Snow Room" dust collector and small dust collector for particulate control shall be in operation and control emissions from the sand handling system (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) at all times

that the sand handling system (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) associated with the respective control device are in operation.

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

D.1.7 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of SV-10A stack exhausts from the sand handling system (EU-F01) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.1.8 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the overall pressure drop across the "Snow Room" dust collector used in conjunction with the sand handling system (EU-F01), at least once per day when the process is in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.9 Broken or Failed Filter and Bag Detection [40 CFR 64]

(a) For a single compartment bin vent filter or baghouse, controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down as soon as safely possible 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 as soon as safely possible until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).

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

D.1.10 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.1.7, the Permittee shall maintain records of visible emission notations of SV-10A stack exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) In order to document the compliance status with Condition D.1.8, the Permittee shall maintain records once per day of the overall pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

SECTION D.2 FACILITY CONDITIONS

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

Melting Operations

(j) One (1) Phase I melting process, collectively identified as emission unit EU-F04, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase I, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #1, #2, and #3, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-1 Baghouse which exhausts through stack SV-14. This baghouse does not control emissions from the ladles. The Phase I scrap preheater and electric induction furnaces #1, #2, and #3 associated with EU-F04 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(k) One (1) Phase II melting process, collectively identified as emission unit EU-F05, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase II, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #4, #5 and #6, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-2 Baghouse which exhausts through stack SV-15. This baghouse does not control emissions from the ladles. The Phase II scrap preheater and electric induction furnaces #4, #5, and #6 associated with EU-F05 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(l) One (1) Phase III melting process, collectively identified as EU-F19, constructed in 1998, with a maximum charge capacity of twenty-five (25) tons of metal per hour, comprised of the following:

(1) One (1) natural gas fired Phase III dryer, identified as EU-F19A, with a maximum heat

input capacity of seven hundred fifty thousand (750,000) British thermal units per hour; and

(2) Two (2) grey iron electric induction furnaces, constructed in 1998 and 1999, respectively, collectively identified as EU-F19B, with a maximum melt rate of twenty-five (25) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation, identified as EU-F19C; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions from these units are controlled by two baghouses identified as EM-3 baghouse constructed in 2000 and EM-3B baghouse constructed in 2006. The EM-3 baghouse controls the two induction furnaces (EU-F19B) and exhausts through stack SV-33. The EM-3B baghouse controls the Phase III dryer (EU-F19A) and exhausts through stack SV-33a. These baghouses do not control emissions from the ladles. EU-F19B is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

(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 Emission Limitations [326 IAC 6.5-6-26] [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-6-26 (Particulate Emission Limitations-Marion County), the Permittee shall comply with the following limitations:

Control Device	Particulate Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
EM-1 Baghouse	0.019	45.7
EM-2 Baghouse	0.020	53.5

(b) Pursuant to 326 IAC 6.5-1-2(e)(2), particulate emissions shall not exceed 0.07 grains per dry standard cubic foot from Phase III melting (EU-F19B).

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

(a) The combined PM10 emissions from the natural gas fired Phase 3 dryer and two (2) grey iron electric induction furnaces associated with Phase III Melting Process (EU-F19A and EU-F19B) shall be limited to 0.21 pound per ton of metal throughput.

(b) The combined PM emissions from the natural gas fired Phase 3 dryer and two (2) grey iron electric induction furnaces associated with Phase III Melting Process (EU-F19A and EU-F19B) shall be limited to 0.38 pound per ton of metal throughput.

(c) The combined lead emissions from the natural gas fired Phase 3 dryer and two (2) grey iron electric induction furnaces associated with Phase III Melting Process (EU-F19A and EU-F19B) shall be limited to 0.010 pound per ton of metal throughput.

(d) The PM10 emissions from the alloy additions and modifications operation associated with the ladle of the Phase III Melting Process (EU-F19C) shall be limited to 0.05 pound per ton of metal throughput.

(e) The PM emissions from the alloy additions and modifications operation associated with the ladle of the Phase III Melting Process (EU-F19C) shall be limited to 0.05 pound per ton of metal throughput.

(f) The throughput of metal processed by the Phase III Melting Process (EU-F19) shall be limited to 114,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these conditions limits the PM10, PM and lead emissions from the Phase III Melting Process (EU-F19) to less than 15, 25, and 0.6 tons per year respectively. Therefore, 326 IAC 2-2 does not apply.

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

A Preventive Maintenance Plan (PMP) is required for the EM-3B baghouse. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.4 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with Condition D.2.2, the EM-3B baghouse shall be in operation and control emissions from the Phase III dryer at all times that the Phase III dryer is in operation. The EM-1, EM-2 and EM-3 baghouses are subject to conditions set forth in Section E of this permit.

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) On or before August 21, 2012, in order to demonstrate the compliance status with Condition D.2.1(a), the Permittee shall perform PM testing for the baghouses associated with the Phase II Melting Process (EU-F05), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(b) On or before February 20, 2013, in order to demonstrate the compliance status with Condition D.2.1(a), the Permittee shall perform PM testing for the baghouses associated with the Phase I Melting Process (EU-F04), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) On or before August 22, 2012, in order to demonstrate the compliance status with Conditions D.2.1(b) and D.2.2(a) and (b), the Permittee shall perform PM and PM10 testing for the Phase III dryer (EU-F19A) and the grey iron electric induction furnaces (EU-F19B), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.. PM10 includes filterable PM10 and condensable PM.

(d) On or before August 22, 2012, in order to demonstrate the compliance status with Conditions D.2.2(c), the Permittee shall perform lead testing for EU-F19A and EU-19B, utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

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

D.2.6 Visible Emissions Notations [40 CFR 64]

(a) Once per day visible emission notations of SV-33a, stack exhaust from the Phase III dryer shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Abnormal or Out-of-Range Monitoring Measurements contains the Permittee's obligations with regard to responding to the

reasonable response steps required by this condition.

D.2.7 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the overall pressure drop across the EM-3B baghouse used in conjunction with the Phase III dryer, at least once per day when the Phase III dryer is in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.8 Broken or Failed Bag Detection [40 CFR 64]

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

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

D.2.9 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.2.6, the Permittee shall maintain records of once per day visible emission notation of SV-33a stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) In order to document the compliance status with Condition D.2.7, the Permittee shall maintain records of the overall pressure drop once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) In order to document the compliance status with Condition D.2.2, the Permittee shall keep monthly records of the tons of metal melted in the Phase III melting process.

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

D.2.10 Reporting Requirements

A quarterly summary of the information to document compliance status with Condition D.2.2(f) shall be submitted to IDEM at the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

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

Molding, Pouring/Cooling and Sand Handling Operations

(m) One (1) M3 molding line, identified as emission unit EU-F06, constructed in 1976, consisting of casting punch out, casting shakeout, a storage hopper and a sand muller, with a maximum capacity of sixty (60) tons of casting per hour, with emissions controlled by the M3 Baghouse which exhausts through stacks SV-16a and SV-16b.

(n) One (1) M3 mold casting cooling (Fume Tunnel M3) operation, identified as emission unit EU-F07, constructed in 1974, with a maximum capacity of sixty (60) tons of casting per hour, with emissions uncontrolled, and exhausting through stacks SV-17-A East, SV-17A West, SV 17-B, SV-17C East, SV-17C West, SV-17D, SV-17E, and SV-27A.

(o) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B. EU-F08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(p) One (1) M1 mold casting cooling (Fume Tunnel M1) operation, identified as emission unit EU-F09, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B.

(q) One (1) molding operation, identified as emission unit EU-F10, constructed in 1976, consisting of the M1 sand system and M1 sand cooler and M1 and M3 casting cooling, with maximum sand throughput of one hundred fifty (150) tons per hour, with emissions controlled by the Phase III South baghouse and the Phase V baghouse, and exhausting through stacks SV-20A through SV-20B and stacks SV-23 a, b, and c respectively.

(r) The M3 sand cooler system, identified as emission unit EU-F10A, constructed in 1976 with a nominal sand throughput of three hundred thirty (330) tons per hour and a maximum capacity of five hundred (500) tons per hour, with emissions controlled by the Phase III North baghouse and exhausting through Stack SV-20c.

(s) One (1) casting vibratory conveyor and casting cooling operation, identified as emission unit EU-F11, constructed in 1977, consisting of casting punch out, shakers, casting shakeout, and casting cooling, with a maximum capacity of ninety (90) tons of metal poured per hour, with emissions controlled by the Phase IV baghouse, and exhausting through stacks SV-21A through SV-21D.

(t) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A through SV-27C. EU-F17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation, modified in 2011, includes: One Compacted Graphite Iron (CGI) ladle metallurgy process, consisting of two stations; with a capacity of 30 tons/hour, 80% of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-35. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

Note: CGI molds will be poured at the existing M-1 pouring station with a maximum capacity of 30 tons per hour and then will return to the M-3 mold pouring operation.

(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 Emission Limitations [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), particulate emissions from the M3 mold casting cooling operation (EU-F07), M1 mold pouring operation (EU-F08), M1 mold casting cooling operation (EU-F09), M3 mold pouring operation (EU-F17) and Compacted Graphite iron process shall each not exceed 0.03 grains per dry standard cubic foot.

D.3.2 Particulate Emission Limitations [326 IAC 6.5-6-26]

Pursuant to 326 IAC 6.5-6-26 (Particulate Matter Limitations-Marion County), the Permittee shall comply with the following limitations:

Control Device	Particulate Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
M3 Baghouse	0.015	72.4
Phase III Baghouse*	0.020	55.1
Phase IV Baghouse	0.02	99.6
Phase V Baghouse	0.02	62.0

* The Phase III Baghouse includes both North and South baghouses combined.

D.3.3 PSD Minor Limit and Nonattainment NSR Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

The Permittee shall comply with the following for the Compacted Graphite Iron (CGI) constructed in 2011:

(a) PM emissions shall not exceed 24.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

PM = [P x (0.2PMu + 0.8PMc)] / 2000 lbs/ton

Where:

P = 12 consecutive month production of CGI in tons

PMu = Uncontrolled PM emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.35 lbs/ton of metal)

PMc = Controlled PM emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.035 lbs/ton of metal).

(b) PM_{10} emissions shall not exceed 14.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

PM_{10} = [P x ($0.2PM_{10}u + 0.8PM_{10}c$)] / 2000 lbs/ton

Where:

P = 12 consecutive month production of CGI in tons

$PM_{10}u$ = Uncontrolled PM_{10} emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.195 lbs/ton of metal)

$PM_{10}c$ = Controlled PM_{10} emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.035 lbs/ton of metal).

(c) $PM_{2.5}$ emissions shall not exceed 9.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

$PM_{2.5} = [P \times (0.2PM_{10}u + 0.8PM_{10}c)] / 2000$ lbs/ton

Where:

P = 12 consecutive month production of CGI in tons

$PM_{2.5}u$ = Uncontrolled $PM_{2.5}$ emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.12 lbs/ton of metal)

$PM_{2.5}c$ = Controlled $PM_{2.5}$ emissions, lbs/ton of metal (Until stack test results, the emission rate shall be assumed to be 0.035 lbs/ton).

Compliance with these limits will ensure that the PM emissions from the Compacted Graphite Iron process are less than 25 tons per year, PM10 emissions less than 15 tons per year and PM2.5 emissions are less than 10 tons per year, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable to the 2011 modification.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP) is required for the control devices associated with M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and shakeout operation (EU-F11). Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.

Compliance Determination Requirement

D.3.5 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with Conditions D.3.2 and D.3.3, the CGI, M3, Phase III North, Phase III South, Phase IV, and Phase V baghouses shall be in operation and control emissions from the CGI, M3 molding line (EUF06), molding operation (EU-F10), and molding operation (EU-F11) operations at all times that the operations associated with the respective control device are in operation.

D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate the compliance status with Condition D.3.2, the Permittee shall perform PM testing for the, M3, Phase III North, Phase III South, Phase IV, and Phase V baghouses utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains

the Permittee's obligations with regard to the performance testing required by this condition.

(b) In order to demonstrate the compliance status with Condition D.3.1, the Permittee shall perform PM testing for M3 mold pouring operation (EU-F17) on or before May 8, 2012, M1 mold pouring operation (EU-F08) on or before March 27, 2013, and utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) Within one hundred and eighty (180) days after the operation of the CGI process, in order to demonstrate the compliance status with Condition D.3.3, the Permittee shall perform the inlet and outlet PM, PM10 and PM2.5 testing on Compacted Graphite Iron process baghouse utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

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

D.3.7 Visible Emissions Notations [40 CFR 64]

(a) Once per day visible emission notations of SV-16A, SV-16B, SV-20A, SV-20B, SV-20C, SV-21A, SV-21B, SV-21C, SV-21D, SV-28 and SV-23 a, b and c, stack exhausts shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.3.8 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the overall pressure drop across each of the baghouses used in conjunction with the M3 molding line (EU-F06), molding operation (EU-F10), M3 sand

cooler system (EU-F10A), and casting vibratory conveyor casting cooling operation (EU-F11) and Compacted Graphite Iron process at least once per day when the M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and/or casting vibratory conveyor casting cooling operation (EU-F11) and Compacted Graphite Iron process are in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.3.9 Broken or Failed Bag Detection [40 CFR 64]

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.

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

D.3.10 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.3.7, the Permittee shall maintain records of once per day visible emission notations of SV-16A, SV-16B, SV-20A, SV-20B, SV-20C, SV-21A, SV-21B, SV-21C, SV-21D,SV-28 and SV-23 a, b and c stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) In order to document the compliance status with Condition D.3.8, the Permittee shall maintain records of the overall pressure drop across the baghouses once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

SECTION D.4 FACILITY OPERATION CONDITIONS

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

Casting Cleaning and Finishing Operations

(u) One (1) casting cleaning operation, identified as emission unit EU-F12, constructed in 1989, consisting of a V shot blast machine, with a nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase VII baghouse, and exhausting through stack SV-22.

(v) One (1) casting cleaning operation, identified as emission unit EU-F13, constructed in 1978, consisting of the I-Block grinder and the V-Block grinder, with a combined nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase V baghouse, and exhausting through stacks SV-23A through SV-23C.

(w) One (1) I-Shot blast machine, identified as emission unit EU-F14, constructed in 1989, with a nominal capacity of 27.1 tons per hour, with emissions controlled by the Phase VI baghouse, and exhausting through stack SV-24.

(x) One (1) casting cleaning operation, identified as emission unit EU-F15, constructed in 1975 and modified in 2000, with a nominal capacity of 10.7 tons per hour, consisting of one (1) grinder and one (1) BMD separator, with emissions controlled by the Phase I baghouse, and exhausting through stacks SV-25A and SV-25B.

(y) One (1) waste sand handling operation, identified as emission unit EU-F16, constructed in 1996, consisting of sand storage silos, dump hoppers, and a sand dump, with a maximum capacity of one hundred (100) tons of sand per hour, with emissions controlled by the Phase VIII baghouse, and exhausting through stack SV-34.

(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 PSD Minor Limit [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2, the PM emissions from EU-F13 are limited as follows:

(1) The combined amount of castings grinded at the I-Block and V-Block grinders, collectively identified as EU-F13, shall be limited to less than 240,000 tons per twelve consecutive month period with compliance determined at the end of each month.

(2) The PM emissions from EU-F13 shall not exceed 0.208 pounds per ton metal grinded.

Compliance with these limits renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration, not applicable to the 1978 modification.

(b) The casting cleaning operation (EU-F12) shall be limited as follows:

(1) The combined amount of castings shot blast at the casting cleaning operation (EU-F12) shall be limited to less than 240,000 tons per twelve consecutive month period with compliance determined at the end of each month.

(2) The PM and PM10 emissions from the casting cleaning operation (EU-F12) shall each not exceed 0.056 pounds per ton of castings. These limitations are structured such that, when including the limited PM and PM10 emissions from the shot blast machine (EU-F14) and the maximum potential PM and PM10 emissions from the Phase I and II scrap preheaters (D.2), PM emissions are less than twenty-five (25) tons per twelve (12) consecutive month period and PM10 emissions are less than fifteen (15) tons per twelve (12) consecutive month period. Compliance with these limitations will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification consisting of the construction of the casting cleaning operation (EU-F12) and the I-Shot blast machine (EU-F14).

These limitations are structured such that, when including the limited PM and PM10 emissions from the shot blast machine (EU-F14) and the maximum potential PM and PM10 emissions from the Phase I and II scrap preheaters (D.2), PM emissions are less than twenty-five (25) tons per twelve (12) consecutive month period and PM10 emissions are less than fifteen (15) tons per twelve (12) consecutive month period. Compliance with these limitations will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification consisting of the construction of the casting cleaning operation (EU-F12) and the I-Shot blast machine (EU-F14).

(c) The I-Shot blast machine (EU-F14) shall be limited as follows:

(1) The total throughput of the I-Shot blast machine (EU-F14) shall not exceed 240,000 tons per twelve consecutive month period with compliance determined at the end of each month.

(2) The PM and PM10 emissions from the I-Shot blast machine (EU-F14) shall not exceed 0.056 pounds per ton of castings.

These limitations are structured such that, when including the limited PM and PM10 emissions from the casting cleaning operation (EU-F12) and the maximum potential PM and PM10 emissions from the Phase I and II scrap preheaters (D.2), PM emissions are less than twenty-five (25) tons per twelve (12) consecutive month period and PM10 emissions are less than fifteen (15) tons per twelve (12) consecutive month period. Compliance with these limitations will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification consisting of the construction of the casting cleaning operation (EU-F12) and the I-Shot blast machine (EU-F14).

(d) The PM emissions from the waste sand handling operation (EU-F16) shall not exceed 5.68 pounds per hour and the PM10 emissions from the sand handling operation (EU-F16) shall not exceed 3.40 pounds per hour. Compliance with these limitations will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not

applicable to the modification consisting of the construction of the waste sand handling operation (EU-F16).

D.4.2 Particulate Emission Limitations [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), particulate emissions from the casting cleaning operation (EU-F12), I-shot blast machine (EU-F14) and waste sand handling operation (EU-F16) shall each not exceed 0.03 grains per dry standard cubic foot.

D.4.3 Particulate Emission Limitations [326 IAC 6.5-6-26]

Pursuant to 326 IAC 6.5-6-26 (Particulate Emission Limitations-Marion County), the Permittee shall comply with the following limitations:

Control Device	Particulate Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
Phase V baghouse	0.02	62.0
Phase I Baghouse	0.020	35.4

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP) is required for any control devices listed in Section D.4. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.

Compliance Determination Requirements

D.4.5 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with Conditions D.4.1, D.4.2, and D.4.3, the Phase VII, Phase V, Phase VI,Phase I, and Phase VIII baghouses shall be in operation and control emissions from the castingcleaning operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EUF14), casting cleaning operation (EU-F15), and waste sand handling operation (EU-F16), at alltimes that the operations associated with the respective control device are in operation.

D.4.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate the compliance status with Conditions D.4.1(a)(2), D.4.1(d), D.4.2 and D.4.3, the Permittee shall perform PM testing on the casting cleaning operation (EU-F13); PM and PM10 testing on Phase VIII baghouse controlling waste sand handling operations (EU-F16); and PM testing on the Phase I baghouse controlling casting cleaning operations (EU-F15), utilizing methods as approved by the Commissioner. All emission units venting to the Phase V baghouse shall be in operation during the stack test. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

(b) On or before March 1, 2014, in order to demonstrate the compliance status with Conditions D.4.1(b)(2), D.4.1(c)(2), and D.4.2, the Permittee shall perform PM and PM10 testing on the casting cleaning operation (EU-F12), and I-shot blast machine utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

(c) In order to demonstrate the compliance status with Conditions D.4.6(a) and (b), the Permittee shall perform the PM and PM10 testing utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C -- Performance Testing.

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

D.4.7 Visible Emissions Notations [40 CFR 64]

(a) Once per day visible emission notations of SV-22, SV-23A SV-23B, SV-23C, SV-24, SV-25A, SV-25B, and SV-34 stack exhausts from three casting cleaning operation (EU-F12, EU-F13, EU-F15), I-shot blast machine (EU-F14), and waste sand handling operation (EU-F16), shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.4.8 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the overall pressure drop across the baghouses used in conjunction with the casting cleaning operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EU-F14), casting cleaning operation (EU-F15), and waste sand handling operation (EU-F16) at least once per day when the casting cleaning

operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EU-F14), casting cleaning operation (EU-F15), and sand handling operation (EU-F16) are in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response step. Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.4.9 Broken or Failed Bag Detection [40 CFR 64]

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

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

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

D.4.10 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.4.1(a), the Permittee shall maintain monthly records of the amount of castings grinded at the I-Block and V-Block grinders (EU-F13).

(b) In order to document the compliance status with Condition D.4.1(b), the Permittee shall maintain records of the metal throughput to the V-shot blast machine (EU F-12).

(c) In order to document the compliance status with Condition D.4.1(c), the Permittee shall maintain monthly records of the metal throughput to the I-Shot blast machine (EU-F14).

(d) In order to document the compliance status with Condition D.4.7, the Permittee shall maintain records of once per day visible emission notations of SV-22, SV-23A SV-23B, SV-23C, SV-24, SV-25A, SV-25B, and SV-34 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(e) In order to document the compliance status with Condition D.4.8, the Permittee shall maintain records of the overall pressure drop once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance status with Conditions D.4.1(a), D.4.1(b) and D.4.1(c) shall be submitted to IDEM at the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

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

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

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

(c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five tenths (0.5) percent sulfur by weight which include the following:

(1) One (1) distillate oil-fired boiler, for emergency purposes only, reconstructed in 2002, identified as IS-E02, located in pump house building #37, with a maximum capacity of 1.5 million British thermal units per hour. [326 IAC 6.5-1-2(b)(2)]

(d) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower which include the following:

(1) One (1) stand-by diesel generator, identified as IS-E05, with a maximum capacity of 325 horsepower, respectively. [326 IAC 6.5-1-2]

(e) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone which include the following:

(1) Two (2) trimmers, identified as IS-E06 and IS-E07, equipped with a dust collector. [326 IAC 6.5-1-2]

(f) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations which include the following:

(1) Core sand hopper and mixing operations, identified as IS-F04, which take place immediately upstream of the cold box core machines. [326 IAC 6.5-1-2]

(2) Two (2) sand storage silos and three (3) bond storage silos, collectively identified as IS-F01. [326 IAC 6.5-1-2]

(3) Batch sand mullers and one (1) sand heater. [326 IAC 6.5-1-2]

(4) Core sand storage in buildings. [326 IAC 6.5-1-2]

(g) Emission units with PM, PM10, and PM2.5 emissions less than five (5) tons per year, SO_2,

NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year which include the following:

(1) One (1) miscellaneous grinding operation, identified as IS-E03, controlled by multi-clones and vented inside. [326 IAC 6.5-1-2]

(2) Four (4) cold engine test cells with the ability to perform both cold engine tests and cylinder contribution audits combusting diesel fuel. [326 IAC 6.5-1-2]

(3) Laser welders. [326 IAC 6.5-1-2]

(4) Induction Hardening heat treatment operations. [326 IAC 6.5-1-2]

(5) Holding furnaces. [326 IAC 6.5-1-2]

(6) Oil mist collectors. [326 IAC 6.5-1-2]

(7) CNC machines

(h) Research and Development activities conducted under close supervision of technically trained personnel that are not engaged in the manufacture of products for sale, exchange for commercial profit, or distribution which include the following:

(1) One (1) 500 kW electric furnace, identified as IS-F05, with a 1,000 pound per hour capacity. [326 IAC 6.5-1-2]

(i) Noncontact cooling tower systems with natural draft not regulated under a NESHAP. [326 IAC 6.5-1-2]

(j) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour which include the following:

(1) Five (5) natural gas-fired drying ovens located with the cold box core machines collectively identified as emission unit EU-F02, consisting of the following sizes:

(2) One (1) natural gas-fired drying oven rated at 3.60 MMBtu/hr located with the Loramendi core line identified as emission unit EU-28. [326 IAC 6.5-1-2]

(3) One (1) 2.5 MMBtu/hr Hagan Oven, identified as EU-F21. [326 IAC 6.5-1-2]

(k) Brazing, cutting torches, soldering and welding activities not resulting in the emission of HAP. [326 IAC 6.5-1-2]

(l) One (1) engine test area described as Reliability where research and warranty parts analysis is performed, identified as emissions unit EU-E03E, constructed prior to 1985 consisting of two (2) engine test run stands and two (2) engine test dyno stands. The two dyno test stands with a nominal fuel consumption rate of one hundred-twenty (120) pounds per hour per engine test

dyno stand and the two engine test run stands with a nominal fuel consumption rate of twenty one (21) pounds per hour per engine test stand, and exhausting through stacks SV-E03E1 through SV-E03E4. [326 IAC 6.5-1-2]

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

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

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations existing as of January 1, 1980, located in Clark, Elkhart, Floyd, Lake, Marion, Porter and St. Joseph Counties at sources which have potential emissions of one hundred (100) tons per year or greater of VOC, 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; and

(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.5.2 Volatile Organic Compounds (VOC) [326 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter or St. Joseph Counties, the Permittee shall ensure that the following 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 (38ºC) (one hundred degrees Fahrenheit (100ºF));

(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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), 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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9ºC) (one hundred twenty degrees Fahrenheit (120ºF)):

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

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

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

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility, construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

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

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

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

D.5.3 Particulate Emission Limitations [326 IAC 6.5-1-2(a)]

(a) Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), particulate emissions from the insignificant activities described in this Section D.5(d) through (l), shall each not exceed 0.03 grains per dry standard cubic foot.

(b) Pursuant to 326 IAC 6.5-1-2(b)(2), particulate emissions from the distillate oil-fired boiler (IS-E02) shall not exceed 0.15 pound per million British thermal units per hour.

Compliance Determination Requirement

D.5.4 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with Condition D.5.3, the dust collectors, fabric filters, dry filters, and multi-clones shall be in operation and control emissions from the insignificant activities described in this Section D.5(e), (f) and (g) at all times that the operations associated with the respective control device are in operation.

SECTION D.6 FACILITY OPERATION CONDITIONS

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

Engine Plant Grinding/Broaching Operation

(z) One (1) head grinding operation, identified as EU-F06N, constructed in 2003, with a rated capacity of five (5) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-06N, when not redirected to exhaust indoors.

(aa) One (1) block broaching operation, identified as EU-F07N, constructed in 2003, with a rated capacity of ten (10) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-07N, when not redirected to exhaust indoors.

(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 PSD Minor Particulate Emission Limitations [326 IAC 2-2]

The Permittee shall limit the PM emissions to less than 5.7 pounds per hour and filterable and condensable emissions of PM10 to less than 3.4 pounds per hour from the head grinding (EU-F06N) and block broaching (EU-F07N) operations. Compliance with this condition will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the construction of the head grinding operation (EU-F06N) and the block broaching operation (EU-F07N).

D.6.2 Particulate Emission Limitations [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), particulate emissions from the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) shall each not exceed 0.03 grains per dry standard cubic foot.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP) is required for any control devices listed in Section D.6. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.

Compliance Determination Requirements

D.6.4 Particulate Control

In order to ensure compliance with Conditions D.6.1 and D.6.2, the head grinding and block broaching baghouses shall be in operation and control emissions from the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) at all times that the operations associated with the respective control device are in operation.

D.6.5 Operation of Control Devices [326 IAC 2-7-6(6)]

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.6.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee shall perform PM and PM10 testing within 180 days of startup. In order to demonstrate the compliance status with Condition D.6.1, the Permittee shall perform PM and PM10 testing on the head grinding operation (EU-F06N) and block broaching operation (EU-F07N), utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

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

D.6.7 Visible Emissions Notations [40 CFR 64]

(a) Once per day visible emission notations of SV-06N and SV-07N stack exhausts from head grinding operation (EU-F06N) and block broaching operation (EU-F07N) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.6.8 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the overall pressure drop across the baghouses used in conjunction with the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) at least once per day when the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) are in operation and venting to the atmosphere. When for any one reading, the overall pressure drop across the baghouse is outside the normal

range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.6.9 Broken or Failed Bag Detection [40 CFR 64]

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).

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

D.6.10 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.6.6, the Permittee shall maintain records of daily visible emission notations of SV-06N and SV-07N stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) In order to document the compliance status with D.6.7, the Permittee shall maintain records of the overall pressure drop across the baghouses. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

SECTION E.1 FACILITY OPERATION CONDITIONS

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

Core Making Operations

(h) Thirteen (13) cold box core machines, each with its own mixer, collectively identified as emission unit EU-F02, using a two (2) part phenolic urethane resin system with a nominal resin content of 2.5% and an amine gas as a catalyst with a nominal usage rate of 1.9 pounds per ton of cores to activate the resin to produce the finished product, with emissions controlled by wet scrubbers #2, #3, #4, and #5, and exhausting through stacks SV-11A, SV-11B, SV-11C, and SV-12. The individual cold box core machines have the following construction dates and capacities.

Machine	Machine Description	Construction Date	Capacity (tons of cores/hr)	Scrubber ID	Stack Vent ID
EU-F02H	5050 EAST	1989	9.3	#2	SV-11C
EU-F02B	CB30	1977	6.05	#2	
EU-F02I	5050 WEST	1989	3.5	#2	
EU-F02D	4040 #2	1985	2.18	#3	SV-11B
EU-F02K	4040 #3	1991	3.07	#3	
EU-F02L	4040 #4	1991	3.5	#3	
EU-F02A	NORTH ISOCURE	1977	2.77	#4	SV-11A
EU-F02C	SOUTH ISOCURE	1979	2.77	#4	
EU-F02E	3540 NORTH	1988	1.96	#5	SV-12
EU-F02F	4040 #5	1989	1.74	#5	
EU-F02G	4040 #6	1989	1.74	#5	
EU-F02J	3540 SOUTH	1990	1.67	#5	
EU-F02M	4040 #7	1995	1.74	#5	

EU-F02 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(i) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

(1) Three (3) sand receiving bins, identified as emission units EU-28B, EU-28C, and EU-28D, with emissions controlled by one dust collector below 4,000 acfm, and exhausting through stack SV-28B.

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by wet scrubber #1, and exhausting

through stack SV-28A.

EU-28A is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(j) One (1) Phase I melting process, collectively identified as emission unit EU-F04, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase I, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #1, #2, and #3, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-1 Baghouse which exhausts through stack SV-14. This baghouse does not control emissions from the ladles. The Phase I scrap preheater and electric induction furnaces #1, #2, and #3 associated with EU-F04 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(k) One (1) Phase II melting process, collectively identified as emission unit EU-F05, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase II, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #4, #5 and #6, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-2 Baghouse which exhausts through stack SV-15. This baghouse does not control emissions from the ladles. The Phase II scrap preheater and electric induction furnaces #4, #5, and #6 associated with EU-F05 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(l) One (1) Phase III melting process, collectively identified as EU-F19, constructed in 1998, with a maximum charge capacity of twenty-five (25) tons of metal per hour, comprised of the following:

(1) One (1) natural gas fired Phase III dryer, identified as EU-F19A, with a maximum heat input capacity of seven hundred fifty thousand (750,000) British thermal units per hour; and

(2) Two (2) grey iron electric induction furnaces, constructed in 1998 and 1999, respectively, collectively identified as EU-F19B, with a maximum melt rate of twenty-five

(25) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation, identified as EU-F19C; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions from these units are controlled by two baghouses identified as EM-3 baghouse constructed in 2000 and EM-3B baghouse constructed in 2006. The EM-3 baghouse controls the two induction furnaces (EU-F19B) and exhausts through stack SV-33. The EM-3B baghouse controls the Phase III dryer (EU-F19A) and exhausts through stack SV-33a. These baghouses do not control emissions from the ladles. EU-F19B is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

Mold Pouring Operations

(o) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B. EU-F08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(t) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A through SV-27C. EU-F17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation, modified in 2011, includes: One Compacted Graphite Iron (CGI) ladle metallurgy process, consisting of two stations; with a capacity of 30 tons/hour, 80% of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-35. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

Note: CGI molds will be poured at the existing M-1 pouring station with a maximum capacity of 30 tons per hour and then will return to the M-3 mold pouring operation.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NESHAP EEEEE [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.7760, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE in accordance with schedule in 40 CFR 63 Subpart EEEEE.

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

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

E.1.2 Iron and Steel Foundries NESHAP [40 CFR Part 63, Subpart EEEEE]

The Permittee that operates an iron and steel foundry, which is a major source of hazardous air pollutants, shall comply with the following provisions of 40 CFR Part 63, Subpart EEEEE (included as Attachment A of this permit), with a compliance date of April 23, 2007:

(1) 40 CFR 63.7680;
(2) 40 CFR 63.7681;
(3) 40 CFR 63.7682(a), (b) and (c);
(4) 40 CFR 63.7683(a), (b) and (f);
(5) 40 CFR 63.7690(a)(1), (a)(5), (a)(7), (a)(11), (b)(1) and (b)(5);
(6) 40 CFR 63.7700(a), (b), (c)(1)(i), (c)(2),(c)(3) and (e);
(7) 40 CFR 63.7710;
(8) 40 CFR 63.7720;
(9) 40 CFR 63.7730; (a) and (b);
(10) 40 CFR 63.7731;
(11) 40 CFR 63.7732(a), (b)(1), (b)(2), (b)(4), (b)(5), (b)(6),(c)(1), (c)(2), (c)(4), (c)(5), (c)(6), (d), (g), (h), and (i);
(12) 40 CFR 63.7733(a), (d), (e) and (f);
(13) 40 CFR 63.7734(a)(1), (a)(5), (a)(7), (a)(11), (b)(1) and (b)(5);
(14) 40 CFR 63.7735(a), (b) and (d);
(15) 40 CFR 63.7736;
(16) 40 CFR 63.7740(a), (b), (c) and (g);
(17) 40 CFR 63.7741(a), (b), (e) and (f);
(18) 40 CFR 63.7742;
(19) 40 CFR 63.7743(a)(1), (a)(5),(a)(7), (a)(11), (a)(12), (b), (c) and (g);
(20) 40 CFR 63.7744(a) and (c);
(21) 40 CFR 63.7745;
(22) 40 CFR 63.7746;
(23) 40 CFR 63.7747 (b), (c) and (d);
(24) 40 CFR 63.7750(a), (b), (d) and (e);
(25) 40 CFR 63.7751;
(26) 40 CFR 63.7752;
(27) 40 CFR 63.7753;
(28) 40 CFR 63.7760;
(29) 40 CFR 63.7761;
(30) 40 CFR 63.7765; and
(31) Table 1.

SECTION E.2 FACILITY OPERATION CONDITIONS

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

Insignificant Activities:

(d) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower which include the following:

(1) One (1) stand-by diesel generator~~s~~, identified as IS-E05, with a maximum capacity of 325 horse power. [326 IAC 6.5-1-2]

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

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

E.2.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source, as designated by 40 CFR 63.6590(a)(1), except when otherwise specified in 40 CFR Part 63 Subpart ZZZZ.

E.2.2 National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

(a) Pursuant to CFR Part 63, Subpart ZZZZ (included as Attachment E of this permit), the Permittee shall comply with the provisions of National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, which are incorporated by reference as 326 IAC 20-82, for the one (1) emergency diesel generator as follows:

(1) 40 CFR 63.6585
(2) 40 CFR 63.6590(a)(1)(ii)
(3) 40 CFR 63.6595(a)(1)
(4) 40 CFR 63.6602
(5) 40 CFR 63.6605
(6) 40 CFR 63.6625(e)(2) and (f)
(7) 40 CFR 63.6640(a), (b), (f)(1)
(8) 40 CFR 63.6645(a)(5)
(9) 40 CFR 63.6655(e)(2)
(10) 40 CFR 63.6660
(11) 40 CFR 63.6665

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

Source Name: Navistar, Inc
Source Address: 5565 Brookville Road, Indiapolis, Indiana 46219
Part 70 Permit No.: 097-30905-00039

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

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

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Navistar, Inc
Source Address: 5565 Brookville Road, Indiapolis, Indiana 46219
Part 70 Permit No.: 097-30905-00039

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

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

- The Permittee must notify the Office of Air Quality (OAQ), no later than four (**4**) daytime 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 no later than two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: Phase III Melting Process (EU-F19)
Parameter: Metal Throughput
Limit: The throughput of metal shall not exceed 114,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: I-Shot Blast Machine (EU-F14)
Parameter: Total throughput engine blocks
Limit: Less than 240,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: I-Block and V-Block grinders (EU-F13)
Parameter: Total amount of castings grinded
Limit: Less than 240,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: Casting cleaning operation (EU-F12)
Parameter: Combined amount of castings shot blast
Limit: Less than 240,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER:_____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: One Compacted Graphite Iron (CGI) ladle metallurgy station
Parameter: PM
Limit: Less than 24.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER:_____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: One Compacted Graphite Iron (CGI) ladle metallurgy station
Parameter: PM10
Limit: Less than 14.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER:_____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039
Facility: One Compacted Graphite Iron (CGI) ladle metallurgy station
Parameter: PM2.5
Limit: Less than 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER:_____ YEAR: _____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD
Permit Requirement (specify permit condition #)
Date of Deviation: **Duration of Deviation:**
Number of Deviations:
Probable Cause of Deviation:
Response Steps Taken:
Permit Requirement (specify permit condition #)
Date of Deviation: **Duration of Deviation:**
Number of Deviations:
Probable Cause of Deviation:
Response Steps Taken:

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
Melt Department Iron & Steel Foundry NESHAP
SEMIANNUAL COMPLIANCE REPORT

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039

Months: _____ to _____ Year: _____

This report shall be submitted semi-annually based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ 40 C.F.R. 63.7736(a)(1)(i) & 40 C.F.R. 63.7736(b)(1) A capture system and control device O&M plan was submitted to the administrator for approval on 4/23/2007
☐ 40 C.F.R. 63.7736(c)(1) A bag leak detection system monitoring plan was submitted to the administrator on 4/23/2007
☐ 40 C.F.R. 63.7736(c)(2) & 40 C.F.R. 63.7736(c)(3) Navistar, Inc. will inspect, operate and maintain each bag leak detection system according to the procedures in the O&M plan and will follow the corrective action procedures for the bag leak detection system alarms according to the requirements of the plan.
☐ 40 C.F.R. 63.7736(a)(1)(ii) & 40 C.F.R. 63.7736(b)(2) Navistar, Inc. will inspect, operate and maintain each capture system and control device according to the procedure in the O&M plan for Melt Department Baghouses and capture systems.
☐ 40 C.F.R. 63.7736(d)(1) & 40 C.F.R. 63.7736(d)(2) A mold vent ignition inspection plan has been submitted to the administrator on 4/23/2007. ☐ The facility has determined that mold vents automatically ignite.
☐ 40 C.F.R. 63.7751(b)(6) There were no periods during which the CPMS was out-of-control during the reporting period for the Melt Department Baghouses
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
Core Room - Iron & Steel Foundry NESHAP
SEMIANNUAL COMPLIANCE REPORT

Source Name: Navistar, Inc.
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Part 70 Permit No.: T097-30905-00039

Months: _____ to _____ Year: _____

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

☐ 40 C.F.R. 63.7736(a)(1)(ii) & 40 C.F.R. 63.7736(b)(1) A capture system and control device O&M plan was submitted to the administrator for approval on 12/1/2005

☐ 40 C.F.R. 63.7736(a)(1)(ii) & 40 C.F.R. 63.7736(b)(2) ICC will inspect, operate, and maintain each capture system and control device according to the procedures in the O&M plan for Core Machines and Core room scrubbers

☐ 40 C.F.R. 63.7751(b)(6) There were no periods during which the CPMS was out-of-control during the reporting period for the Core Room pH meters and liquid flow rate devices

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation: **Duration of Deviation:**

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation: **Duration of Deviation:**

Number of Deviations:
Probable Cause of Deviation:
Response Steps Taken:

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attachment A
to Part 70 Significant Permit Modification

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

Source Name:	Navistar, Inc.
Source Location:	5565 Brookville Road, Indianapolis, Indiana 46219
County:	Marion County
SIC Code:	3321, 3519
Operating Permit No.:	097-30905-00039
Permit Reviewer:	Ghassan Shalabi

Source: 69 FR 21923, Apr. 22, 2004, unless otherwise noted.

What this Subpart Covers

§ 63.7680 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for iron and steel foundries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.

§ 63.7681 Am I subject to this subpart?

You are subject to this subpart if you own or operate an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year as defined in §63.2.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

§ 63.7682 What parts of my foundry does this subpart cover?

(a) The affected source is each new or existing iron and steel foundry.

(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.

(d) An affected source is new if you commenced construction or reconstruction of the affected source on or after December 23, 2002. An affected source is reconstructed if it meets the definition of “reconstruction” in §63.2.

§ 63.7683 When do I have to comply with this subpart?

(a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 23, 2007. Major source status for existing affected sources must be determined no later than April 23, 2007.

(b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.

(c) If you have a new affected source for which the initial startup date is on or before April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 22, 2004.

(d) If you have a new affected source for which the initial startup date is after April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(e) If your iron and steel foundry is an area source that becomes a major source of HAP, you must meet the requirements of §63.6(c)(5).

(f) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.

Emissions Limitations

§ 63.7690 What emissions limitations must I meet?

(a) You must meet the emissions limits or standards in paragraphs (a)(1) through (11) of this section that apply to you. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in paragraph (a)(1)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(1)(ii) of this section:

(i) 0.005 grains of PM per dry standard cubic foot (gr/dscf), or

(ii) 0.0004 gr/dscf of total metal HAP.

(2) For each cupola metal melting furnace at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(2)(i) or (ii) of this section or, alternatively the limit for total metal HAP in paragraph (a)(2)(iii) or (iv) of this section:

(i) 0.006 gr/dscf of PM; or

(ii) 0.10 pound of PM per ton (lb/ton) of metal charged, or

(iii) 0.0005 gr/dscf of total metal HAP; or

(iv) 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(3)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(3)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(4)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(4)(ii) of this section:

(i) 0.001 gr/dscf of PM, or

(ii) 0.00008 gr/dscf of total metal HAP.

(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:

(i) 0.010 gr/dscf of PM, or

(ii) 0.0008 gr/dscf of total metal HAP.

(6) For each pouring area or pouring station at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(6)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(6)(ii) of this section:

(i) 0.002 gr/dscf of PM, or

(ii) 0.0002 gr/dscf of total metal HAP.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, you must not discharge emissions of volatile organic hazardous air pollutants (VOHAP) through a conveyance to the atmosphere that exceed 20 parts per million by volume (ppmv) corrected to 10 percent oxygen.

(9) As an alternative to the work practice standard in §63.7700(e) for a scrap preheater at an existing iron and steel foundry or in §63.7700(f) for a scrap preheater at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed a flow-weighted average of 20 ppmv.

(11) For each triethylamine (TEA) cold box mold or core making line at a new or existing iron and steel foundry, you must meet either the emissions limit in paragraph (a)(11)(i) of this section or, alternatively the emissions standard in paragraph (a)(11)(ii) of this section:

(i) You must not discharge emissions of TEA through a conveyance to the atmosphere that exceed 1 ppmv, as determined according to theperformance test procedures in § 63.7732(g); or

(ii) You must reduce emissions of TEA from each TEA cold box mold or core making line by at least 99 percent, as determined according to the performance test procedures in § 63.7732(g).

(b) You must meet each operating limit in paragraphs (b)(1) through (5) of this section that applies to you.

(1) You must install, operate, and maintain a capture and collection system for all emissions sources subject to an emissions limit for VOHAP or TEA in paragraphs (a)(8) through (11) of this section.

(i) Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(ii) You must operate each capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan.

(2) You must operate each wet scrubber applied to emissions from a metal melting furnace, scrap preheater, pouring area, or pouring station subject to an emissions limit for PM or total metal HAP in paragraphs (a)(1) through (6) of this section such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test.

(3) You must operate each combustion device applied to emissions from a cupola metal melting furnace subject to the emissions limit for VOHAP in paragraph (a)(8) of this section, such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average.

(4) You must operate each combustion device applied to emissions from a scrap preheater subject to the emissions limit for VOHAP in paragraph (a)(9) of this section or from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section, such that the 3-hour average combustion zone temperature does not fall below the minimum level established during the initial or subsequent performance test.

(5) You must operate each wet acid scrubber applied to emissions from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section such that:

(i) The 3-hour average scrubbing liquid flow rate does not fall below the minimum level established during the initial or subsequent performance test; and

(ii) The 3-hour average pH of the scrubber blowdown, as measured by a continuous parameter monitoring system (CPMS), does not exceed 4.5 or the pH of the scrubber blowdown, as measured once every 8 hours during process operations, does not exceed 4.5.

(c) If you use a control device other than a baghouse, wet scrubber, wet acid scrubber, or combustion device, you must prepare and submit a monitoring plan containing the information listed in paragraphs (c)(1) through (5) of this section. The monitoring plan is subject to approval by the Administrator.

(1) A description of the device;

(2) Test results collected in accordance with §63.7732 verifying the performance of the device for reducing emissions of PM, total metal HAP, VOHAP, or TEA to the levels required by this subpart;

(3) A copy of the operation and maintenance plan required by §63.7710(b);

(4) A list of appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limitation(s); and

(5) Operating parameter limits based on monitoring data collected during the performance test.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

Work Practice Standards

§ 63.7700 What work practice standards must I meet?

(a) For each segregated scrap storage area, bin or pile, you must either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section. You may have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.

(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids. For the purpose of this paragraph (b), “free organic liquids” is defined as material that fails the paint filter test by EPA Method 9095A, “Paint Filter Liquids Test” (Revision 1, December 1996), as published in EPA Publication SW–846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (incorporated by reference—see §63.14). Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification.

(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.

(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or

(ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastic, and a program to ensure the scrap materials are drained of free liquids.

(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must either obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable, or document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.

(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.

(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.

(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.

(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.

(iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.

(d) For each furan warm box mold or core making line in a new or existing iron and steel foundry, you must use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet. This requirement does not apply to the resin portion of the binder system.

(e) For each scrap preheater at an existing iron and steel foundry, you must meet either the requirement in paragraph (e)(1) or (2) of this section. As an alternative to the requirement in paragraph (e)(1) or (2) of this section, you must meet the VOHAP emissions limit in §63.7690(a)(9).

(1) You must operate and maintain a gas-fired preheater where the flame directly contacts the scrap charged; or

(2) You must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section.

(f) For each scrap preheater at a new iron and steel foundry, you must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section. As an alternative to this requirement, you must meet the VOHAP emissions limit in §63.7690(a)(9).

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7218, February 7, 2008]

Operation and Maintenance Requirements

§ 63.7710 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to a PM, metal HAP, TEA, or VOHAP emissions limit in §63.7690(a). Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.

(1) Monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.

(2) Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11). You must establish the operating according to the requirements in paragraphs (b)(2)(i) through (iii) of this section.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting.

(ii) For each operating limit parameter selected in paragraph (b)(2)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (i.e., the operating limits with one furnace melting, two melting, as applicable to your plant).

(iii) Include documentation in your plan to support your selection of the operating limits established for your capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations.

(3) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(4) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the

recommendations contained in the U.S. Environmental Protection Agency guidance document “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) of this section.

(i) Installation of the bag leak detection system.

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

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

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

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

(5) Corrective action plan for each baghouse. The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:

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

(ii) Sealing off defective bags or filter media.

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

(iv) Sealing off a defective baghouse compartment.

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

(vi) Making process changes.

(vii) Shutting down the process producing the PM emissions.

(6) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and

(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7218, February 7, 2008]

General Compliance Requirements

§ 63.7720 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, or malfunction.

(b) During the period between the compliance date specified for your iron and steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

Initial Compliance Requirements

§ 63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after the compliance date that is specified in §63.7683 for your iron and steel foundry to demonstrate initial compliance with each emissions limitation in §63.7690 that applies to you.

(b) For each work practice standard in §63.7700 and each operation and maintenance requirement in §63.7710 that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than 30 calendar days after the compliance date that is specified for your iron and steel foundry in §63.7683.

(c) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, you must demonstrate initial compliance with either the proposed emissions limit or the promulgated emissions limit no later than October 19, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, and you chose to comply with the proposed emissions limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emissions limit by October 19, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

§ 63.7731 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emissions limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years and each time you elect to change an operating limit or to comply with

a different alternative emissions limit, if applicable. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.

(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?

(a) You must conduct each performance test that applies to your iron and steel foundry based on your selected compliance alternative, if applicable, according to the requirements in §63.7(e)(1) and the conditions specified in paragraphs (b) through (i) of this section.

(b) To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater. For a cupola metal melting furnace at an existing iron and steel foundry that is subject to the PM emissions limit in §63.7690(a)(ii), calculate the PM emissions rate in pounds of PM per ton (lb/ton) of metal charged using Equation 1 of this section:

$$EF_{PM} = C_{PM} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7,000} \right) \qquad \text{(Eq. 1)}$$

Where:

EF_{PM} = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged;

C_{PM} = Concentration of PM measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm);

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and
7,000 = Unit conversion factor, grains per pound (gr/lb).

(c) To determine compliance with the applicable emissions limit for total metal HAP in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (6) of this section.

(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 29 to determine the total metal HAP concentration.

(2) A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.

(6) Determine the total mass of metal charged to the furnace or scrap preheater during each performance test run and calculate the total metal HAP emissions rate (pounds of total metal HAP per ton (lb/ton) of metal charged) using Equation 2 of this section:

$$EF_{TMHAP} = C_{TMHAP} x \left(\frac{Q}{M_{charge}} \right) x \left(\frac{t_{test}}{7,000} \right) \qquad \text{(Eq. 2)}$$

Where:

EF_{TMHAP} = Emissions rate of total metal HAP, pounds of total metal HAP per ton (lb/ton) of metal charged;

C_{TMHAP} = Concentration of total metal HAP measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dscfm;

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, gr/lb.

(d) To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and §63.6(h)(5). The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.

(2) During testing intervals when PM performance tests, if applicable, are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests.

(e) To determine compliance with the applicable VOHAP emissions limit in §63.7690(a)(8) for a cupola metal melting furnace or in §63.7690(a)(9) for a scrap preheater, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.

(1) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO) or Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas.

(2) Determine the average VOHAP, TGNMO, or TOC concentration using a minimum of three valid test runs. Each test run must include a minimum of 60 continuous operating minutes.

(3) For a cupola metal melting furnace, correct the measured concentration of VOHAP, TGNMO, or TOC for oxygen content in the gas stream using Equation 3 of this section:

$$C_{VOHAP,10\%O_2} = C_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 3)}$$

Where:

C_{VOHAP} = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A; and

$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis).

(4) For a cupola metal melting furnace, measure the combustion zone temperature of the combustion device with the CPMS required in §63.7740(d) during each sampling run in 15-minute intervals. Determine and record the 15-minute average of the three runs.

(f) Follow the applicable procedures in paragraphs (f)(1) through (3) of this section to determine compliance with the VOHAP emissions limit in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines.

(1) Follow these procedures to demonstrate compliance by direct measurement of total hydrocarbons (a surrogate for VOHAP) using a volatile organic compound (VOC) CEMS.

(i) Using the VOC CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) for 180 continuous operating minutes. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Reduce the monitoring data to hourly averages as specified in §63.8(g)(2).

(iii) Compute and record the 3-hour average of the monitoring data.

(2) As an alternative to the procedures in paragraph (f)(1) of this section, you may demonstrate compliance with the VOHAP emissions limit in §63.7690(a)(10) by establishing a site-specific TOC emissions limit that is correlated to the VOHAP emissions limit according to the procedures in paragraph (f)(2)(i) through (ix) of this section.

(i) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraph (f)(2)(ii) through (vi) of this section.

(ii) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(iii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iv) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(v) Method 4 to determine the moisture content of the stack gas.

(vi) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of TGNMO using hexane as the calibration gas.

(vii) Using the CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) during each of the Method 18 (or Method 25) sampling runs. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(viii) Calculate the average VOHAP (or TGNMO) concentration for the source test as the arithmetic average of the concentrations measured for the individual test runs, and determine the average concentration of total hydrocarbon (as hexane) as measured by the CEMS during all test runs.

(ix) Calculate the site-specific VOC emissions limit using Equation 4 of this section:

$$VOC_{limit} = 20x\frac{C_{VOHAP,avg}}{C_{CEM}} \qquad \text{(Eq. 4)}$$

Where:

$C_{VOHAP,avg}$ = Average concentration of VOHAP for the source test in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the average concentration of TGNMO for the source test in ppmv as hexane as measured by Method 25 in 40 CFR part 60, appendix A; and

C_{CEM} = Average concentration of total hydrocarbons in ppmv as hexane as measured using the CEMS during the source test.

(3) For two or more exhaust streams from one or more automated conveyor and pallet cooling lines or automated shakeout lines, compute the flow-weighted average concentration of VOHAP emissions for each combination of exhaust streams using Equation 5 of this section:

$$C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 5)}$$

Where:

C_W = Flow-weighted concentration of VOHAP or VOC, ppmv (as hexane);

C_i = Concentration of VOHAP or VOC from exhaust stream ‘‘i’’, ppmv (as hexane);

n = Number of exhaust streams sampled; and

Q_i = Volumetric flow rate of effluent gas from exhaust stream ‘‘i,’’, dscfm.

(g) To determine compliance with the emissions limit or standard in §63.7690(a)(11) for a TEA cold box mold or core making line, follow the test methods in 40 CFR part 60, appendix A, specified in paragraphs (g)(1) through (4) of this section.

(1) Determine the TEA concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (g)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. If you elect to meet the 99 percent reduction standard, sampling sites must be located both at the inlet to the control device and at the outlet of the control device prior to any releases to the atmosphere. If you elect to meet the concentration limit, the sampling site must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the TEA concentration. Alternatively, you may use NIOSH Method 2010 (incorporated by reference—see §63.14) to determine the TEA concentration provided the performance requirements outlined in section 13.1 of EPA Method 18 are satisfied. The sampling option and time must be sufficiently long such that either the TEA concentration in the field sample is at least 5 times the limit of detection for the analytical method or the test results calculated using the laboratory's reported analytical detection limit for the specific field samples are less than 1/5 of the applicable emissions limit. When using Method 18, the adsorbent tube approach, as described in section 8.2.4 of Method 18, may be required to achieve the necessary analytical detection limits. The sampling time must be at least 1 hour in all cases.

(2) If you use a wet acid scrubber, conduct the test as soon as practicable after adding fresh acid solution and the system has reached normal operating conditions.

(3) If you use a wet acid scrubber that is subject to the operating limit in §63.7690(b)(5)(ii) for pH level, determine the pH of the scrubber blowdown using the procedures in paragraph (g)(3)(i) or (ii) of this section.

(i) Measure the pH of the scrubber blowdown with the CPMS required in §63.7740(f)(2) during each TEA sampling run in intervals of no more than 15 minutes. Determine and record the 3-hour average; or

(ii) Measure and record the pH level using the probe and meter required in §63.7740(f)(2) once each sampling run. Determine and record the average pH level for the three runs.

(4) If you are subject to the 99 percent reduction standard, calculate the mass emissions reduction using Equation 6 of this section:

$$\%\text{reduction} = \frac{E_i - E_o}{E_i} x100\% \qquad \text{(Eq. 6)}$$

Where:

E_i = Mass emissions rate of TEA at control device inlet, kilograms per hour (kg/hr); and

E_o = Mass emissions rate of TEA at control device outlet, kg/hr.

(h) To determine compliance with the PM or total metal HAP emissions limits in §63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.

(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(2) Use the procedures in paragraphs (h)(2)(i) through (iii) of this section.

(i) Determine the volumetric flow rate of the individual regulated streams for which emissions limits apply.

(ii) Calculate the flow-weighted average emissions limit, considering only the regulated streams, using Equation 5 of this section, except C_w is the flow-weighted average emissions limit for PM or total metal HAP in the exhaust stream, gr/dscf; and C_i is the concentration of PM or total metal HAP in exhaust stream ''i'', gr/dscf.

(iii) Meet the calculated flow-weighted average emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(3) Use the procedures in paragraphs (h)(3)(i) through (iii) of this section.

(i) Determine the PM or total metal HAP concentration of each of the regulated streams prior to the combination with other exhaust streams or control device.

(ii) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before and after the control device and calculate the mass removal efficiency of the control device using Equation 6 of this section, except E_i is the mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr and E_o is the mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(iii) Meet the applicable emissions limit based on the calculated PM or total metal HAP concentration for the regulated emissions sources using Equation 7 of this section:

$$C_{released} = C_i x\left(1 - \frac{\%reduction}{100}\right) \qquad \text{(Eq. 7)}$$

Where:

$C_{released}$= Calculated concentration of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, gr/dscf; and

C_i= Concentration of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, gr/dscf.

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

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7219, February 7, 2008]

§ 63.7733 What procedures must I use to establish operating limits?

(a) For each capture system subject to operating limits in §63.7690(b)(1)(ii), you must establish site-specific operating limits in your operation and maintenance plan according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).

(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.

(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.

(b) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run.

(2) Compute and record the average pressure drop and average scrubber water flow rate for each valid sampling run in which the applicable emissions limit is met.

(c) For each combustion device applied to emissions from a scrap preheater or TEA cold box mold or core making line subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you must establish a site-specific operating limit according to the procedures specified in paragraphs (c)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(e), measure and record the combustion zone temperature during each sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average combustion zone temperature for each valid sampling run in which the applicable emissions limit is met.

(d) For each acid wet scrubber subject to the operating limit in §63.7690(b)(5), you must establish a site-specific operating limit for scrubbing liquid flow rate according to the procedures specified in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(f), measure and record the scrubbing liquid flow rate during each TEA sampling run in intervals of no more than 15 minutes.

(2) Compute and record the average scrubbing liquid flow rate for each valid sampling run in which the applicable emissions limit is met.

(e) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in paragraphs (e)(1) through (3) of this section.

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

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.7690.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (d) of this section.

(f) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of this subpart.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?

(a) You have demonstrated initial compliance with the emissions limits in §63.7690(a) by meeting the applicable conditions in paragraphs (a)(1) through (11) of this section. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.005 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.006 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0005 gr/dscf; or

(iii) The average PM mass emissions rate, determined according to the performance test procedures in §63.7732(b), did not exceed 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) The average total metal HAP mass emissions rate, determined according to the performance test procedures in §63.7732(c), did not exceed 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.001 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.010 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, the opacity of fugitive emissions from foundry operations discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not exceed 20 percent (6-minute average), except for one 6-minute average per hour that did not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, the average VOHAP concentration, determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing iron and steel foundry that does not meet the work practice standards in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not meet the work practice standard in §63.7700(f), the average VOHAP concentration determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new foundry,

(i) You have reduced the data from the CEMS to 3-hour averages according to the performance test procedures in §63.7732(f)(1) or (2); and

(ii) The 3-hour flow-weighted average VOHAP concentration, measured according to the performance test procedures in §63.7332(f)(1) or (2), did not exceed 20 ppmv.

(11) For each TEA cold box mold or core making line in a new or existing iron and steel foundry, the average TEA concentration, determined according to the performance test procedures in §63.7732(g), did not exceed 1 ppmv or was reduced by 99 percent.

(b) You have demonstrated initial compliance with the operating limits in §63.7690(b) if:

(1) For each capture system subject to the operating limit in §63.7690(b)(1)(ii),

(i) You have established appropriate site-specific operating limits in your operation and maintenance plan according to the requirements in §63.7710(b); and

(ii) You have a record of the operating parameter data measured during the performance test in accordance with §63.7733(a); and

(2) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b).

(3) For each combustion device subject to the operating limit in §63.7690(b)(3) for combustion zone temperature, you have a record of the combustion zone temperature measured during the performance test in accordance with §63.7732(e)(4).

(4) For each combustion device subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you have established appropriate site-specific operating limits and have a record of the combustion zone temperature measured during the performance test in accordance with §63.7733(c).

(5) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5) for scrubbing liquid flow rate and scrubber blowdown pH,

(i) You have established appropriate site-specific operating limits for the scrubbing liquid flow rate and have a record of the scrubbing liquid flow rate measured during the performance test in accordance with §63.7733(d); and

(ii) You have a record of the pH of the scrubbing liquid blowdown measured during the performance test in accordance with §63.7732(g)(3).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?

(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that: “At all times, your foundry will purchase and use only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids.”

(b) For each iron and steel foundry subject to the requirements in §63.7700(c) for a scrap inspection and selection plan, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted a written plan to the Administrator for approval according to the requirements in §63.7700(c); and

(2) You will operate at all times according to the plan requirements.

(c) For each furan warm box mold or core making line in a new or existing foundry subject to the work practice standard in §63.7700(d), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You will meet the no methanol requirement for the catalyst portion of each binder chemical formulation; and

(2) You have records documenting your certification of compliance, such as a material safety data sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet, onsite and available for inspection.

(d) For each scrap preheater at an existing iron and steel foundry subject to the work practice standard in §63.7700(e)(1) or (2), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have installed a gas-fired preheater where the flame directly contacts the scrap charged, you will operate and maintain each gas-fired scrap preheater such that the flame directly contacts the scrap charged, and you have records documenting your certification of compliance that are onsite and available for inspection; or

(2) You will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

(e) For each scrap preheater at a new iron and steel foundry subject to the work practice standard in §63.7700(f), you have demonstrated initial compliance if you have certified in your notification of compliance status that you will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005]

§ 63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in paragraphs (a)(1) and (2) of this section.

(1) You have certified in your notification of compliance status that:

(i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan.

(2) You have certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan.

(b) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(2) You will inspect, operate, and maintain each control device according to the procedures in the plan.

(c) For each bag leak detection system, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the bag leak detection system monitoring information to the Administrator within the written O&M plan for approval according to the requirements of §63.7710(b);

(2) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and

(3) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan.

(d) For each pouring area and pouring station in a new or existing foundry, you have demonstrated initial compliance if you have certified in your notification of compliance status report that:

(1) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and

(2) You will follow the procedures for igniting mold vent gases according to the requirements in the plan.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

Continuous Compliance Requirements

§ 63.7740 What are my monitoring requirements?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) and the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you use a flow measurement device to monitor the operating limit parameter, you must at all times monitor the hourly average rate (e.g., the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device).

(2) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in § 63.7741(b).

(c) For each baghouse, regardless of type, that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must conduct inspections at their specified frequencies according to the requirements specified in paragraphs (c)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply for pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(d) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c).

(e) For each combustion device subject to the operating limit in §63.7690(b)(3), you must at all times monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).

(f) For each combustion device subject to the operating limit in §63.7690(b)(4), you must at all times monitor the 3-hour average combustion zone temperature using CPMS according to the requirements in §63.7741(d).

(g) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5),

(1) You must at all times monitor the 3-hour average scrubbing liquid flow rate using CPMS according to the requirements of §63.7741(e)(1); and

(2) You must at all times monitor the 3-hour average pH of the scrubber blowdown using CPMS according to the requirements in §63.7741(e)(2) or measure and record the pH of the scrubber blowdown once per production cycle using a pH probe and meter according to the requirements in §63.7741(e)(3).

(h) For one or more automated conveyor and pallet cooling lines and automated shakeout lines at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must at all times monitor the 3-hour average VOHAP concentration using a CEMS according to the requirements of §63.7741(g).

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7741 What are the installation, operation, and maintenance requirements for my monitors?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) through (3) of this section.

(1) If you use a flow measurement device to monitor an operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(1)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) If you use a pressure measurement device to monitor the operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close as possible to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly.

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) Record the results of each inspection, calibration, and validation check.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

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

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

(4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including

temperature and humidity according to the procedures in the operation and maintenance plan required by §63.7710(b).

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

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

(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in paragraphs (c)(1) and (2) of this section.

(1) For each CPMS for pressure drop you must:

(i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily. If a ‘‘non-clogging’’ pressure tap is used, check for pluggage monthly

(iv) Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(2) For each CPMS for scrubber liquid flow rate, you must:

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(d) For each combustion device subject to the operating limit in §63.7690(b)(3) or (4), you must install and maintain a CPMS to measure and record the combustion zone temperature according to the requirements in paragraphs (d)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 °C or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If you use a chart recorder, it must have a sensitivity in the minor division of at least 20 °F.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor.

(8) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(e) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5), you must:

(1) Install and maintain CPMS to measure and record the scrubbing liquid flow rate according to the requirements in paragraph (c)(2) of this section; and

(2) Install and maintain CPMS to measure and record the pH of the scrubber blowdown according to the requirements in paragraph (e)(2)(i) through (iv) of this section.

(i) Locate the pH sensor in a position that provides a representative measurement of the pH and that minimizes or eliminates internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.1 pH or a transducer with a minimum measurement sensitivity of 5 percent of the pH range.

(iii) Check gauge calibration quarterly and transducer calibration monthly using a manual pH gauge.

(iv) At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.

(3) As an alternative to the CPMS required in paragraph (e)(2) of this section, you may use a pH probe to extract a sample for analysis by a pH meter that meets the requirements in paragraphs (e)(3)(i) through (iii) of this section.

(i) The pH meter must have a range of at least 1 to 5 or more;

(ii) The pH meter must have an accuracy of ±0.1; and

(iii) The pH meter must have a resolution of at least 0.1 pH.

(f) You must operate each CPMS used to meet the requirements of this subpart according to the requirements specified in paragraphs (f)(1) through (3) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data.

(2) Each CPMS must have valid hourly data for 100 percent of every averaging period.

(3) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.

(g) For each automated conveyor and pallet cooling line and automated shakeout line at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must install, operate, and maintain a CEMS to measure and record the concentration of VOHAP emissions according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) You must install, operate, and maintain each CEMS according to Performance Specification 8 in 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each CEMS according to the requirements of §63.8 and Performance Specification 8 in 40 CFR part 60, appendix B.

(3) You must operate each CEMS according to the requirements specified in paragraph (g)(3)(i) through (iv) of this section.

(i) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(ii) You must reduce CEMS data as specified in §63.8(g)(2).

(iii) Each CEMS must determine and record the 3-hour average emissions using all the hourly averages collected for periods during which the CEMS is not out-of-control.

(iv) Record the results of each inspection, calibration, and validation check.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7221, February 7, 2008]

§ 63.7742 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?

(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section. When alternative emissions limitations are provided for a given emissions source, you must comply with the alternative emissions limitation most recently selected as your compliance alternative.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.006 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0005 gr/dscf; or

(iii) Maintaining the average PM mass emissions rate at or below 0.10 pound of PM per ton (lb/ton) of metal charged; or

(iv) Maintaining the average total metal HAP mass emissions rate at or below 0.008 pound of total metal HAP per ton (lb/ton) of metal charged.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at new iron and steel foundry, (i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.001 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions from foundry operations discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing new iron and steel foundry that does not comply with the work practice standard in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not comply with the work practice standard in §63.7700(f), maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines or automated shakeout lines that use a sand mold system at a new iron and steel foundry,

(i) Maintaining the 3-hour flow-weighted average VOHAP concentration in the exhaust stream at or below 20 ppmv;

(ii) Inspecting and maintaining each CEMS according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements; and

(iii) Collecting and reducing monitoring data for according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements.

(11) For each TEA cold box mold or core making line at a new or existing iron and steel foundry, maintaining a 99 percent reduction in the VOHAP concentration in the exhaust stream or maintaining the average VOHAP concentration in the exhaust stream at or below 1 ppmv.

(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in §63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7).

(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7690(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.

(1) Operating the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and

(2) Monitoring the capture system according to the requirements in §63.7740(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements in this subpart.

(c) For each baghouse,

(1) Inspecting and maintaining each baghouse according to the requirements of §63.7740(c)(1) through (8) and recording all information needed to document conformance with these requirements; and

(2) If the baghouse is equipped with a bag leak detection system, maintaining records of the times the bag leak detection system sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) For each wet scrubber that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(e) For each combustion device that is subject to the operating limit in §63.7690(b)(3), you must demonstrate continuous compliance by:

(1) Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300 °F;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(f) For each combustion device that is subject to the operating limit in §63.7690(b)(4), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average combustion zone temperature at a level no lower that established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(g) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average scrubbing liquid flow rate at a level no lower than the level established during the initial or subsequent performance test;

(2) Maintaining the 3-hour average pH of the scrubber blowdown at a level no higher than 4.5 (if measured by a CPMS) or maintaining the pH level of the scrubber blowdown during each production shift no higher than 4.5;

(3) Inspecting and maintaining each CPMS according to the requirements of §63.7741(e) and recording all information needed to document conformance with these requirements; and

(4) Collecting and reducing monitoring data for scrubbing liquid flow rate and scrubber blowdown pH according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. If the pH level of the scrubber blowdown is measured by a probe and meter, you must demonstrate continuous compliance by maintaining records that document the date, time, and results of each sample taken for each production shift.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d).

(c) For a scrap preheater at an existing iron and steel foundry, you must operate and maintain each gas-fired preheater such that the flame directly contacts the scrap charged to demonstrate continuous compliance with the requirement §63.7700(e)(1). If you choose to meet the work practice standard in §63.7700(e)(2), you must keep records to document that the scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b).

(d) For a scrap preheater at a new iron and steel foundry, you must keep records to document that each scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) to demonstrate continuous compliance with the requirement in §63.7700(f).

§ 63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by:

(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements;

(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;

(4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and

(5) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)

(b) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.

§ 63.7746 What other requirements must I meet to demonstrate continuous compliance?

(a) Deviations. You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies to you. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of §63.7751.

(b) Startups, shutdowns, and malfunctions. (1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

[69 FR 21923, Apr. 22, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

§ 63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?

(a) You may request an alternative monitoring method to demonstrate compliance with the VOHAP emissions limits in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines at a new iron and steel foundry according to the procedures in this section.

(b) You can request approval to use an alternative monitoring method in the notification of construction or reconstruction for new sources, or at any time.

(c) You must submit a monitoring plan that includes a description of the control technique or pollution prevention technique, a description of the continuous monitoring system or method including appropriate operating parameters that will be monitored, test results demonstrating compliance with the emissions limit, operating limit(s) (if applicable) determined according to the test results, and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the monitors.

(d) The monitoring plan is subject to approval by the Administrator. Use of the alternative monitoring method must not begin until approval is granted by the Administrator.

Notifications, Reports, and Records

§ 63.7750 What notifications must I submit and when?

(a) You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you start up your iron and steel foundry before April 22, 2004, you must submit your initial notification no later than August 20, 2004.

(c) If you start up your new iron and steel foundry on or after April 22, 2004, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii). For opacity performance tests, the notification of compliance status may be submitted with the semiannual compliance report in §63.7751(a) and (b) or the semiannual part 70 monitoring report in § 63.7551(d).

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in §63.10(d)(2).

§ 63.7751 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by §63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent

compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each emissions source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan and the source exceeds any applicable emissions limitation in § 63.7690, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an iron and steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7752 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of §63.10(b)(2)(xiv).

(2) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation).

(b) You must keep the following records for each CEMS.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to relative accuracy tests for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7222, February 7, 2008]

§ 63.7753 In what form and for how long must I keep my records?

(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite.

Other Requirements and Information

§ 63.7760 What parts of the General Provisions apply to me?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7761 Who implements and enforces this subpart?

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

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to non-opacity emissions limitations in §63.7690 and work practice standards in §63.7700 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

Definitions

§ 63.7765 What definitions apply to this subpart?

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

Automated conveyor and pallet cooling line means any dedicated conveyor line or area used for cooling molds received from pouring stations.

Automated shakeout line means any mechanical process unit designed for and dedicated to separating a casting from a mold. These mechanical processes include, but are not limited to, shaker decks, rotary separators, and high-frequency vibration units. Automated shakeout lines do not include manual processes for separating a casting from a mold, such as personnel using a hammer, chisel, pick ax, sledge hammer, or jackhammer.

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

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

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

Cold box mold or core making line means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas.

Combustion device means an afterburner, thermal incinerator, or scrap preheater.

Conveyance means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance.

Cooling means the process of molten metal solidification within the mold and subsequent temperature reduction prior to shakeout.

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

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

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

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

(3) Fails to meet any emissions limitation (including operating limits) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

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

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

Emissions limitation means any emissions limit or operating limit.

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

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

Fresh acid solution means a sulfuric acid solution used for the control of triethylamine emissions that has a pH of 2.0 or less.

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart.

Furan warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated as a furan warm box system by the foundry industry.

Hazardous air pollutant means any substance on the list originally established in 112(b)(1) of the CAA and subsequently amended as published in the Code of Federal Regulations.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities and operations that only produce non-commercial castings are not included in this definition.

Metal melting furnace means a cupola, electric arc furnace, or electric induction furnace that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making green sand molds or cores.

Mold vent means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring.

Off blast means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off blast conditions include cupola startup when air is introduced to the cupola to preheat the sand bed and other cupola startup procedures as defined in the startup, shutdown, and malfunction plan. Off blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.

On blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production.

Pouring area means an area, generally associated with floor and pit molding operations, in which molten metal is brought to each individual mold. Pouring areas include all pouring operations that do not meet the definition of a pouring station.

Pouring station means the fixed location to which molds are brought in a continuous or semicontinuous manner to receive molten metal, after which the molds are moved to a cooling area.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate volatile impurities or other tramp materials by direct flame heating or similar means of heating. Scrap dryers, which solely remove moisture from metal scrap, are not considered to be scrap preheaters for purposes of this subpart.

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH before being returned to the scrubber.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 21923, Apr. 22, 2004, as amended at 70 FR 29404, May 20, 2005; 73 FR 7222, February 7, 2008]

Table 1 to Subpart EEEEE of Part 63—Applicability of General Provisions to Subpart EEEEE

[As stated in §63.7760, you must meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to Subpart EEEEE?	Explanation
63.1	Applicability	Yes	
63.2	Definitions	Yes	
63.3	Units and abbreviations	Yes	
63.4	Prohibited activities	Yes	
63.5	Construction/reconstruction	Yes	
63.6(a)–(g)	Compliance with standards and maintenance requirements	Yes	
63.6(h)	Opacity and visible emissions standards	Yes	
63.6(i)–(j)	Compliance extension and Presidential compliance exemption	Yes	
63.7(a)(1)–(a)(2)	Applicability and performance test dates	No	Subpart EEEEE specifies applicability and performance test dates.
63.7(a)(3), (b)–(h)	Performance testing requirements	Yes	
63.8(a)(1)–(a)(3), (b), (c)(1)–(c)(3), (c)(6)–(c)(8), (d), (e), (f)(1)–(f)(6), (g)(1)–(g)(4)	Monitoring requirements	Yes	Subpart EEEEE specifies requirements for alternative monitoring systems.
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No	Subpart EEEEE does not require flares.
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No	Subpart EEEEE specifies requirements for operation of CMS and CEMS.

63.8(c)(5)	Continuous opacity monitoring system (COMS) Minimum Procedures	No	Subpart EEEEE does not require COMS.
63.8(g)(5)	Data reduction	No	Subpart EEEEE specifies data reduction requirements.
63.9	Notification requirements	Yes	Except: for opacity performance tests, Subpart EEEEE allows the notification of compliance status to be submitted with the semiannual compliance report or the semiannual part 70 monitoring report.
63.10(a)–(b), (c)(1)–(6), (c)(9)–(15), (d)(1)–(2), (e)(1)–(2), (f)	Recordkeeping and reporting requirements	Yes	Additional records for CMS in §63.10(c)(1)–(6), (9)–(15) apply only to CEMS.
63.10(c)(7)–(8)	Records of excess emissions and parameter monitoring exceedances for CMS	No	Subpart EEEEE specifies records requirements.
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes	
63.10(e)(3)	Excess emissions reports	No	Subpart EEEEE specifies reporting requirements.
63.10(e)(4)	Reporting COMS data	No	Subpart EEEEE data does not require COMS.
63.11	Control device requirements	No	Subpart EEEEE does not require flares.
63.12	State authority and delegations	Yes	
63.13–63.15	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality	Yes	

[69 FR 21923, Apr. 22, 2004, as amended at 73 FR 7223, February 7, 2008]

Attachment B
to a Part 70 **Operating Permit Renewal**

40 CFR 63, Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

Source Description and Location

Source Name:	Navistar, Inc.
Source Location:	5565 Brookville Road, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	3321, 3519
Operation Permit Renewal No.:	T 097-30905-00039
Permit Reviewer:	Ghassan Shalabi

Applicable Portions of the NESHAP

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:

C_i= concentration of CO or formaldehyde at the control device inlet,

C_o= concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2concentration is measured in lieu of oxygen concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:

F_o= Fuel factor based on the ratio of oxygen volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:

X_{co2}= CO_2correction factor, percent.

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

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

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

Where:

$\%CO_2$= Measured CO_2concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number,

viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are

deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity

or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

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

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

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

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

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant,

including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

Table 1ato Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1bto Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .

1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR.	Comply with any operating limitations approved by the Administrator.

[76 FR 12867, Mar. 9, 2011]

Table 2ato Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .

1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2bto Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to	a. maintain your catalyst so that the pressure drop across the catalyst does not change by

reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]

	annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	

	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2	
10. Non-emergency,	Limit concentration of CO	

non-black start 4SLB stationary RICE 100≤HP≤500	in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

Table 2dto Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission

		limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace	

	as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours	

	of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O_2; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs	

	every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE	Conduct subsequent performance tests semiannually.[1]

	exhaust	
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O_2at the inlet and outlet of the control device; and	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[a](incorporated by reference, see §63.14). Measurements to determine O_2must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[ab](incorporated by reference, see §63.14)

		control device		or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O_2concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM	(a) Measurements to determine O_2concentration must be made at the same

		RICE exhaust at the sampling port location; and	Method D6522–00 (2005)	time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO Concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour longer runs.

[a]You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

[b]You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

[c]You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP,	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and

and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a

stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year		performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during

		the initial performance test.
9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of formaldehyde and not using NSCR	i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved

		operating parameters (if any) during the initial performance test.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[76 FR 12867, Mar. 9, 2011]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month

		and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour

		rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

that operate 24 hours or less per calendar year		
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour

		rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and

		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[76 FR 12870, Mar. 9, 2011]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP and operated more than 24 hours	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the	i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in §63.6650(b). i. Semiannually

per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP		information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)	according to the requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.

[75 FR 51603, Aug. 20, 2010]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation

§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	

§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		

§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for

			demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	

§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and	No.	

	malfunction reports		
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i)(C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Navistar, Inc
Source Location:	5565 Brookville Road, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	3321, 3519
Permit Renewal No.:	T097-30905-00039
Permit Reviewer:	Ghassan Shalabi

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Navistar, Inc. relating to the operation of a stationary grey iron foundry, metal machining operations, engine testing, and engine assembly source. On September 12, 2011, Navistar, Inc. submitted an application to the OAQ requesting to renew its operating permit. Navistar, Inc. was issued its Part 70 Operating Permit T097-6993-00039 on June 13, 2007.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

Coremaking Operations

(a) One (1) sand receiving and handling system, identified as emission unit EU-F01, constructed in 1962, with a maximum capacity of one hundred twenty (120) tons of sand per hour, with portions of the sand receiving and handling system's emissions controlled by the "Snow Room" dust collector, and exhausting through stack SV-10A.

(b) Thirteen (13) cold box core machines, each with its own mixer, collectively identified as emission unit EU-F02, using a two (2) part phenolic urethane resin system with a nominal resin content of 2.5% and an amine gas as a catalyst with a nominal usage rate of 1.9 pounds per ton of cores to activate the resin to produce the finished product, with emissions controlled by wet scrubbers #2, #3, #4, and #5, and exhausting through stacks SV-11A, SV-11B, SV-11C, and SV-12. The individual cold box core machines have the following construction dates and capacities.

Machine	Machine Description	Construction Date	Capacity (tons of cores/hr)	Scrubber ID	Stack Vent ID
EU-F02H	5050 EAST	1989	9.3	#2	SV-11C
EU-F02B	CB30	1977	6.05	#2	
EU-F02I	5050 WEST	1989	3.5	#2	
EU-F02D	4040 #2	1985	2.18	#3	SV-11B
EU-F02K	4040 #3	1991	3.07	#3	
EU-F02L	4040 #4	1991	3.5	#3	
EU-F02A	NORTH ISOCURE	1977	2.77	#4	SV-11A
EU-F02C	SOUTH ISOCURE	1979	2.77	#4	
EU-F02E	3540 NORTH	1988	1.96	#5	SV-12
EU-F02F	4040 #5	1989	1.74	#5	
EU-F02G	4040 #6	1989	1.74	#5	
EU-F02J	3540 SOUTH	1990	1.67	#5	
EU-F02M	4040 #7	1995	1.74	#5	

EU-F02 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(c) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

(1) Three (3) sand receiving bins, identified as emission units EU-28B, EU-28C, and EU-28D, with emissions controlled by one dust collector below 4,000 acfm, and exhausting through stack SV-28B.

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by wet scrubber #1, and exhausting through stack SV-28A.

EU-28A is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

Melting Operations

(d) One (1) Phase I melting process, collectively identified as emission unit EU-F04, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase I, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #1, #2, and #3, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-1 Baghouse which exhausts through stack SV-14. This baghouse does not control emissions from the ladles. The Phase I scrap preheater and electric induction furnaces #1, #2, and #3 associated with EU-F04 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(e) One (1) Phase II melting process, collectively identified as emission unit EU-F05, constructed in 1971, with a maximum charge capacity of twenty (20) tons of metal per hour, comprised of the following:

(1) One (1) natural gas-fired scrap preheater Phase II, constructed in 1989 and modified in 2000, with a maximum heat input capacity of nineteen and a half (19.5) million British thermal units per hour; and

(2) Three (3) electric induction furnaces, #4, #5 and #6, with a maximum melt rate of twenty (20) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions are controlled by the EM-2 Baghouse which exhausts through stack SV-15. This baghouse does not control emissions from the ladles. The Phase II scrap preheater and electric induction furnaces #4, #5, and #6 associated with EU-F05 are considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(f) One (1) Phase III melting process, collectively identified as EU-F19, constructed in 1998, with a maximum charge capacity of twenty-five (25) tons of metal per hour, comprised of the following:

(1) One (1) natural gas fired Phase III dryer, identified as EU-F19A, with a maximum heat input capacity of seven hundred fifty thousand (750,000) British thermal units per hour; and

(2) Two (2) grey iron electric induction furnaces, constructed in 1998 and 1999, respectively, collectively identified as EU-F19B, with a maximum melt rate of twenty-five (25) tons of metal per hour. A portion of alloy additions and modifications occur in the furnace.

(3) One (1) alloy additions and modifications operation, identified as EU-F19C; this operation occurs when magnesium and other elements are added to the molten grey iron. Alloy additions and modifications occur in the ladles used to remove and pour the molten iron.

Emissions from these units are controlled by two baghouses identified as EM-3 baghouse constructed in 2000 and EM-3B baghouse constructed in 2006. The EM-3 baghouse controls the two induction furnaces (EU-F19B) and exhausts through stack SV-33. The EM-3B baghouse controls the Phase III dryer (EU-F19A) and exhausts through stack SV-33a. These baghouses do not control emissions from the ladles. EU-F19B is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE.

Molding, Pouring/Cooling and Sand Handling Operations

(g) One (1) M3 molding line, identified as emission unit EU-F06, constructed in 1976, consisting of casting punch out, casting shakeout, a storage hopper and a sand muller, with a maximum capacity of sixty (60) tons of casting per hour, with emissions controlled by the M3 Baghouse which exhausts through stacks SV-16a and SV-16b.

(h) One (1) M3 mold casting cooling (Fume Tunnel M3) operation, identified as emission unit EU-F07, constructed in 1974, with a maximum capacity of sixty (60) tons of casting per hour, with emissions uncontrolled, and exhausting through stacks SV-17A East, SV 17-A West, SV17-B, SV-17C East, SV-17C West, SV-17D, SV-17E and SV-27A.

(i) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B. EU-F08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(j) One (1) M1 mold casting cooling (Fume Tunnel M1) operation, identified as emission unit EU-F09, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A and SV-19B.

(k) One (1) molding operation, identified as emission unit EU-F10, constructed in 1976, consisting of the M1 sand system and M1 sand cooler and M1 and M3 casting cooling, with maximum sand throughput of one hundred fifty (150) tons per hour, with emissions controlled by the Phase III South baghouse and the Phase V baghouse, and exhausting through stacks SV-20A through SV-20B and stacks SV-23 a, b, and c respectively.

(l) The M3 sand cooler system, identified as emission unit EU-F10A, constructed in 1976 with a nominal sand throughput of three hundred thirty (330) tons per hour and a maximum capacity of five hundred (500) tons per hour, with emissions controlled by the Phase III North baghouse and exhausting through Stack SV-20c.

(m) One (1) casting vibratory conveyor and casting cooling operation, identified as emission unit EU-F11, constructed in 1977, consisting of casting punch out, shakers, casting shakeout, and casting cooling, with a maximum capacity of ninety (90) tons of metal poured per hour, with emissions controlled by the Phase IV baghouse, and exhausting through stacks SV-21A through SV-21D.

(n) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A through SV-27C. EU-F17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation**,** modified in 2011, includes: One Compacted Graphite Iron (CGI) ladle metallurgy process, consisting of two stations; with a capacity of 30 tons/hour, 80% of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-35. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

Note: CGI molds will be poured at the existing M-1 pouring station with a maximum capacity of 30 tons per hour and then will return to the M-3 mold pouring operation.

Casting Cleaning and Finishing Operations

(o) One (1) casting cleaning operation, identified as emission unit EU-F12, constructed in 1989, consisting of a V shot blast machine, with a nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase VII baghouse, and exhausting through stack SV-22.

(p) One (1) casting cleaning operation, identified as emission unit EU-F13, constructed in 1978, consisting of the I-Block grinder and the V-Block grinder, with a combined nominal capacity of 33.7 tons per hour, with emissions controlled by the Phase V baghouse, and exhausting through stacks SV-23A through SV-23C.

(q) One (1) I-Shot blast machine, identified as emission unit EU-F14, constructed in 1989, with a nominal capacity of 27.1 tons per hour, with emissions controlled by the Phase VI baghouse, and exhausting through stack SV-24.

(r) One (1) casting cleaning operation, identified as emission unit EU-F15, constructed in 1975 and modified in 2000, with a nominal capacity of 10.7 tons per hour, consisting of one (1) grinder and one (1) BMD separator, with emissions controlled by the Phase I baghouse, and exhausting through stacks SV-25A and SV-25B.

(s) One (1) waste sand handling operation, identified as emission unit EU-F16, constructed in 1996, consisting of sand storage silos, dump hoppers, and a sand dump, with a maximum capacity of one hundred (100) tons of sand per hour, with emissions controlled by the Phase VIII baghouse, and exhausting through stack SV-34.

Engine Plant Grinding/Broaching Operation

(t) One (1) head grinding operation, identified as EU-F06N, constructed in 2003, with a rated capacity of five (5) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-06N, when not redirected to exhaust indoors.

(u) One (1) block broaching operation, identified as EU-F07N, constructed in 2003, with a rated capacity of ten (10) tons per hour, with emissions controlled by a 21,000 cfm baghouse, exhausting to stack SV-07N, when not redirected to exhaust indoors.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(a) One (1) stand-by diesel generator, identified as IS-E04, with a maximum capacity of 225 horsepower.

Insignificant Activities

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

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

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

(c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five tenths (0.5) percent sulfur by weight which include the following:

(1) One (1) distillate oil-fired boiler, for emergency purposes only, reconstructed in 2002, identified as IS-E02, located in pump house building #37, with a maximum capacity of 1.5 million British thermal units per hour. [326 IAC 6.5-1-2(b)(2)]

(d) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment. [326 IAC 2-7-1(21)(G)(ii)(AA)]

(e) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 2-7-1(21)(G)(ii)(BB)]

(f) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower which include the following:

(1) One (1) stand-by diesel generator, identified as IS-E05, with a maximum capacity of 325 horse power, respectively. [326 IAC 6.5-1-2]

(g) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone which include the following:

(1) Two (2) trimmers, identified as IS-E06 and IS-E07, equipped with a dust collector. [326 IAC 6.5-1-2]

(h) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations which include the following:

(1) Core sand hopper and mixing operations, identified as IS-F04, which take place immediately upstream of the cold box core machines. [326 IAC 6.5-1-2]

(2) Two (2) sand storage silos and three (3) bond storage silos, collectively identified as IS-F01. [326 IAC 6.5-1-2]

(3) Batch sand mullers and one (1) sand heater. [326 IAC 6.5-1-2]

(4) Core sand storage in buildings. [326 IAC 6.5-1-2]

(i) Emission units with PM and PM10 emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year which include the following:

(1) One (1) miscellaneous grinding operation, identified as IS-E03, controlled by multi-clones and vented inside. [326 IAC 6.5-1-2]

(2) Laser welders. [326 IAC 6.5-1-2]

(3) Induction Hardening heat treatment operations. [326 IAC 6.5-1-2]

(4) Holding furnaces. [326 IAC 6.5-1-2]

(5) CNC machines. [326 IAC 6.5-1-2]

(j) Research and Development activities conducted under close supervision of technically trained personnel that are not engaged in the manufacture of products for sale, exchange for commercial profit, or distribution which include the following:

(1) One (1) 500 kW electric furnace, identified as IS-F05, with a 1,000 pound per hour capacity. [326 IAC 6.5-1-2]

(k) Noncontact cooling tower systems with natural draft not regulated under a NESHAP. [326 IAC 6.5-1-2]

(l) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour which include the following:

(1) Five (5) natural gas-fired drying ovens located with the cold box core machines collectively identified as emission unit EU-F02, consisting of the following sizes:

(2) One (1) natural gas-fired drying oven rated at 3.60 MMBtu/hr located with the Loramendi core line identified as emission unit EU-28. [326 IAC 6.5-1-2]

(3) One (1) 2.5 MMBtu/hr Hagan Oven, identified as EU-F21. [326 IAC 6.5-1-2]

(m) Brazing, cutting torches, soldering and welding activities not resulting in the emission of HAP. [326 IAC 6.5-1-2]

(n) Slag removal from ladles, corebox cleaning, ladle preheater area, slag dumping, ladle relining, refractory application, core debining, core assembly, pattern cleaning and refuse sand loading.

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

(p) Combustion source flame safety purging on startup. [326 IAC 2-7-1(21)(G)(i)(CC)]

(q) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons. [326 IAC 2-7-1(21)(G)(iii)(AA)]

(2) Vessels storing the following: lubricating oils, hydraulic oils, machining oils or machining fluids. [326 IAC 2-7-1(21)(G)(iii)(BB)]

(r) Refractory storage not requiring air pollution control equipment. [326 IAC 2-7-1(21)(G)(iv)]

(s) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:

(1) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.

(2) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight. [326 IAC 2-7-1(21)(G)(i)]

(3) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

(u) Application of oils, greases, lubricants and other nonvolatile material as temporary protective coatings. [326 IAC 2-7-1(21)(G)(vi)(AA)]

(v) Machining where an aqueous cutting coolant continuously floods the machining interface. [326 IAC 2-7-1(21)(G)(vi)(BB)]

(w) Cleaners and solvents:

(1) Having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or

(2) Having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit) the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months. [326 IAC 2-7-1(21)(G)(vi)(DD)]

(x) Closed loop heating and cooling systems. [326 IAC 2-7-1(21)(G)(vi)(FF)]

(y) Infrared cure equipment. [326 IAC 2-7-1(21)(G)(vi)(GG)]

(z) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs. [326 IAC 2-7-1(21)(G)(ix)(DD)]

(aa) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment. [326 IAC 2-7-1(21)(G)(x)(AA)]

(bb) Routine 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, including the following:

One (1) woodworking operation controlled by a cyclone

(cc) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

(1) Catch tanks,

(2) Temporary liquid separators,

(3) Tanks, and

(4) Fluid handling equipment. [326 IAC 2-7-1(21)(G)(xix)]

(dd) On-site fire and emergency response training approved by IDEM. [326 IAC 2-7-1(21)(G)(xxii)(AA)]

(ee) Stationary fire pumps. [326 IAC 2-7-1(21)(G)(xxii)(CC)]

(ff) Purge double block and bleed valves. [326 IAC 2-7-1(21)(G)(xxiv)]

(gg) Filter or coalescer media changeout. [326 IAC 2-7-1(21)(G)(xxv)]

(hh) Mold release agents using low volatile products (vapor pressure less than or equal to two (2) kilo Pascals measured at thirty-eight (38) degrees Centigrade). [326 IAC 2-7-1(21)(G)(xxii)]

(ii) Heat exchanger cleaning and repair [326 IAC 2-7-1 (21)(G)(X)(BB)]

(jj) Blowdown from sight glasses; boilers; compressors; pumps and cooling towers [326 IAC 2-7-1(21)(G)(xx)]

(kk) Furnaces used for melting metals other than beryllium with a brim full capacity equal to or less than four hundred fifty (450) cubic meters by volume [326 IAC 2-7-1(21)(G)(xxi)].

(ll) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume [326 IAC 2-7-1(21)(G)(ix)(AA)].

(mm) Water-based adhesives that are less than or equal to five percent (5%) by volume of VOCs excluding HAPs. [326 IAC 2-7-1(21)(G)(ix)(EE)].

(nn) Noncontact cooling towers with forced or induced draft systems not regulated by a NESHAP. [326 IAC 2-7-1(21)(G)(ix)(FF)(bb)].

(oo) Quenching operations used with heat treating processes [326 IAC 2-7-1(21)(G)(ix)(GG)]

(pp) Two (2) 4,500 gallon phenolic urethane resin storage tanks identified as IS-20 and IS-21, each constructed in 1987, and one (1) 6,800 gallon Part II isocyanate resin storage tank identified as IS-22 constructed in 1985.

Existing Approvals

The source was issued Part 70 Operating Permit No. T097-6993-00039 on June 13, 2007. The source has since received the following approvals:

(a) Administrative Amendment No. 097-29247-00039, issued on November 16, 2007;

(b) Administrative Amendment No. 097-26598-00039, issued on June 24, 2008;

(c) Significant Permit Modification No. 097-26673-00039, issued on June 1, 2009.

(d) Significant Permit Modification No. 097-29924-00039, issued on February 16, 2011.

(e) Significant Source Modification No. 097-30106-00039, issued on March 22, 2011.

(f) Significant Permit Modification No. 097-30122-00039, issued on April 6, 2011.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

Part 70 permit level was determined in a previous approval. Therefore, the potential to emit was not recalculated for this source.

County Attainment Status

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11th Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O_3	Attainment effective November 8, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.

[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

The source is located in Marion County.

(a) Ozone Standards

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

(b) $PM_{2.5}$
Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

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

Fugitive Emissions

Since this source is classified as a secondary metal production source, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO_2	greater than 100
VOC	greater than 100
CO	greater than 100
NO_x	greater than 100

HAPs	Potential To Emit (tons/year)
Benzene	greater than 10
Cumene	greater than 10
Formaldehyde	greater than 10
Lead	greater than 10
Manganese	greater than 10
Naphthalene	greater than 10
Phenol	greater than 10
Triethylamine	greater than 10
Xylene	greater than 10
All Other HAPs	less than 10 (each HAP)
TOTAL HAPs	greater than 25

Part 70 permit level was determined in a previous approval. Therefore, the potential to emit was not recalculated for this source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pllutants is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions as reported by the source. This information reflects the 2009 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM10	97
PM2.5	96
SO_2	2
VOC	105
CO	336
NO_x	23
Ammonia	0
Lead	0.1

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)								
Process/Facility	PM	PM-10	PM - 2.5	SO_2	VOC	CO	NO_X	GHG	Total HAPs
Spray Paint Booth and Drying Oven (EU-E02) 1997	23.9[2] (326 IAC 2-2)	14.7 (326 IAC 2-2)	14.7 (326 IAC 2-2)	Neg.	57.92 (326 IAC 2-2)	0.29	0.35	0	Neg.
NGD Test Cell Area (EU-E03A) 1995	8.55[4]	8.55[4]	8.55	7.99[4]	9.92[4]	26.19[4]	51.8 (326 IAC 2-2)	0	Neg.
Core Sand Mixing Platform (EU-F01) 1962	473.04[3]	473.04	473.04	0	0	0	0	0	0
Cold Box Core Machines (EU-F02) 1977-1995	0	0	0	0	6150.9	0	0	0	4575.73
Hot Box Core Machines (EU-F03) 1974	178.05[3]	145.85	145.85	21.02	21.89	2.23	32.85	0	29.38
Core Line (EU-28A-F) 1999	13.18[2] (326 IAC 2-2)	13.18 (326 IAC 2-2)	13.18	0	7.1 (326 IAC 2-2, 8-1-6)	0	0	0	3.92 (326 IAC 2-4.1)
Phase 1 Melting (EU-F04) 1971 & 89	45.7 (326 IAC 6.5-6-26)	639.3	639.3	0.06	5.91	7.80	9.18	10312	5.51
Phase 2 Melting (EU-F05) 1971 & 89	53.5 (326 IAC6.5-6-26)	639.3	639.3	0.06	5.91	7.8	9.18	10312	5.51
M3 Molding Line (EU-F06) 1976	72.4 (326 IAC 6.5-6-26)	588.67	588.67	0	315.36	0	0	0	37.78
M3 Casting Cooling (EU-F07) 1974	367.92[3]	367.92	367.92	7.67	29.43	1,009.15	16.76	0	25.24
M1 Mold Pouring (EU-F08) 1957	551.88[3]	551.88	551.88	0.96	3.68	126.14	2.09	0	3.17
M1 Casting Cooling (EU-F09) 1957	183.96[3]	183.96	183.96	3.84	14.72	504.58	8.38	0	12.64
Molding Operation (EU-F10) 1976	55.1 (326 IAC 6.5-6-26)	354.78	354.78	0	0	0	0	0	9.11
Molding Operation (EU-F11) 1977	99.6 (326 IAC 6.5-6-26)	294.34	294.34	0	157.68	0	0	0	18.88
M3 Mold Pouring (EU-F17) 1974	1103.76[3]	1103.76	1103.76	1.92	7.36	252.28	4.19	0	6.33
Casting Line (EU-F18) being constructed	539.62[3]	10 (326 IAC 2-2)	10	1.93	13.49	0	0.96	0	8.08
Casting Cleaning (EU-F12) 1989	3.04[2] (326 IAC 2-2)	3.04 (326 IAC 2-2)	3.04	0	0	0	0	0	0
Casting Cleaning (EU-F13) 1978	62.0 (326 IAC 6.5-6-26)	7848.14	7848.14	0	0	0	0	0	0

	Potential to Emit (tons/year)								
Process/Facility	PM	PM-10	PM - 2.5	SO_2	VOC	CO	NO_X	GHG	Total HAPs
I-Shot Blast (EU-F14) 1989	10.5[2] (326 IAC 2-2)	10.5 (326 IAC 2-2)	10.5	0	0	0	0	0	0
Casting Cleaning (EU-F15) 1975/2000 and Phase 3 Melting (EU-F19) 1998	35.4 (326 IAC 6.5-6-26) 25 (326 IAC 2-2)	15 (326 IAC 2-2)	15	0.08	11.59	2.19	13.14	397	Lead - 0.6 (326 IAC 2-2) Total - 2.45
Sand Handling (EU-F16) 1996	25[2] (326 IAC 2-2)	15 (326 IAC 2-2)	15	0	0	0	0	0	0
Head Grinding (EU-F06N) 2003	7.88[2] (326 IAC 2-2)	7.88 (326 IAC 2-2)	7.88	0	0	0	0	0	0
Block Broaching (EU-F07N) 2003				0	0	0	0	0	0
7 NG drying oven (EU-F02) and 1 NG drying oven (EU-28)	0.2	0.8	0.8	0.1	0.6	9.1	10.9	13114	0.2
Stand-by diesel generator (IS-E02)	3.13	3.13	3.13	2.92	3.58	9.51	44.13	1640	0.04
FO-Fired Boiler (IS-E02) and FO-Fired Combustion source	0.2	0.3	0.2	7.8	0	0.5	2.2	2364	0
2.5 MMBtu/hr Hagan Oven (EU-F21)	0.0	0.1	0.1	0.0	0.1	0.9	1.1	1322	0.023
GCI Process	24.97	14.9	9.99	0.0	0.66	0	0	0	0
Total Emissions	3963.95	13303.79	13303.79	45.53	6813.62	1939.55	149.98	39461	4741.90
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO2e	100
PSD Major Source Thresholds	100	100	-	100	100	100	100	100,000 CO_2e	-
Emission Offset/ Nonattainment NSR Major Source Thresholds	-	-	100	-	-	-	-	-	-

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
Note that all emissions shown in this table are at maximum capacity unless otherwise indicated.
[1]This limit is pursuant to 326 IAC 2-2 minor limit. This operation is also subject to the requirements of 326 IAC 7-1.1-2 and 326 IAC 7-4-2. Pursuant to 326 IAC 7-1.1-2, the sulfur dioxide emissions from the boilers shall not exceed 0.5 lb/MMBtu and pursuant to 326 IAC 7-4-2, the sulfur emissions are limited to 2.98 lb/MMBtu, each, and 193.72 lb/hr.
[2]These limits are pursuant to 326 IAC 2-2 minor limit. These units are also subject to a grain loading limit of 0.03 gr/dscf pursuant to 326 IAC 6.5-6-26.
[3]These emissions are uncontrolled. These units are also subject to a grain loading limit of 0.03 gr/dscf pursuant to 326 IAC 6.5-6-26.
[4]These emissions are based on the fuel consumption limit to render the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable to specific modifications.
[5]These units are also subject to a particulate emission limit of 0.27 lb/MMBtu pursuant to 326 IAC 6-2-4.

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

(b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5), since direct PM2.5 from the entire source is emitted at a rate of one hundred (100) tons per year or more.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

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

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

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

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
core sand mixing platform (EU-F01) PM	Dust Collector	Y	>100	<100	100	Y	N
core sand mixing platform (EU-F01) PM10	Dust Collector	Y	>100	<100	100	Y	N
Cold Box Core Machines (EU-F02) VOC	Wet Scrubbers #2-5	N	>100	<100	100	N	N
Cold Box Core Machines (EU-F02) HAP	Wet Scrubbers #2-5	N	>100	<100	100	N (Post 1990 NESHAP)	N
Sand Receiving Bin #1 (EU-28B)	Dust Collector	Y	<100	<100	100	N	N
Sand Receiving Bin #2 (EU-28C)	Dust Collector	Y	<100	<100	100	N	N
Sand Receiving Bin #3 (EU-28D)	Dust Collector	Y	<100	<100	100	N	N
Cold Box Core Machines (EU-28A)	Acid Scrubber	Y	<100	<100	100	N	N
Phase 1 melting process (EU-F04) PM	EM-1 Baghouse	Y	>100	<100	100	Y	N
Phase 1 melting process (EU-F04) PM10	EM-1 Baghouse	Y	>100	<100	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Phase 2 melting process (EU-F05) PM	EM-2 Baghouse	Y	>100	<100	100	Y	N
Phase 2 melting process (EU-F05) PM10	EM-2 Baghouse	Y	>100	<100	100	Y	N
Phase 3 melting process (EU-F19) PM	EM-3 & EM-3B Baghouse	Y	>100	<100	100	Y	N
Phase 3 melting process (EU-F19) PM10	EM-3 & EM-3B Baghouse	Y	>100	<100	100	Y	N
M3 molding line (EU-F06) PM	M3 Baghouse	Y	>100	<100	100	Y	N
M3 molding line (EU-F06) PM10	M3 Baghouse	Y	>100	<100	100	Y	N
M3 mold Casting and cooling (EU-F07)	None	Y	>100	>100	100	N	N
M1 mold pouring (EU-F08)	None	Y	>100	>100	100	N	N
M1 mold, casting and cooling (EU-F09)	None	Y	>100	>100	100	N	N
Molding operation (EU-F10) PM	Phase 3 South & Phase 5 Baghouses	Y	>100	<100	100	Y	N
Molding operation (EU-F10) PM10	Phase 3 South & Phase 5 Baghouses	Y	>100	<100	100	Y	N
M3 Sand Cooler System (EU-F10A) PM	Phase 3 North Baghouse	Y	>100	<100	100	Y	N
M3 Sand Cooler System (EU-F10A) PM10	Phase 3 North Baghouse	Y	>100	<100	100	Y	N
molding operation (EU-F11) PM	Phase 4 Baghouse	Y	>100	<100	100	Y	N
molding operation (EU-F11) PM10	Phase 4 Baghouse	Y	>100	<100	100	Y	N
M3 Mold Pouring (EU-F17)	None	Y	>100	>100	100	N	N
Casting Cleaning Operation (EU-F12) PM	Phase 7 Baghouse	Y	>100	<100	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Casting Cleaning Operation (EU-F12) PM10	Phase 7 Baghouse	Y	>100	<100	100	Y	N
casting cleaning operation (EU-F13) PM	Phase 5 Baghouse	Y	>100	<100	100	Y	N
shot blasting (EU-F14) PM	Phase 6 Baghouse	Y	>100	<100	100	Y	N
shot blasting (EU-F14) PM10	Phase 6 Baghouse	Y	>100	<100	100	Y	N
casting cleaning (EU-F15) PM	Phase 1 Baghouse	Y	>100	<100	100	Y	N
sand handling (EU-F16) PM	Phase 8 Baghouse	Y	>100	<100	100	Y	N
sand handling (EU-F16) PM10	Phase 8 Baghouse	Y	>100	<100	100	Y	N
Head Grinding (EU-F06N) PM	Baghouse	Y	>100	<100	100	Y	N
Head Grinding (EU-F06N) PM10	Baghouse	Y	>100	<100	100	Y	N
Block Broaching (EU-F07N)	Baghouse	Y	>100	<100	100	Y	N
Block Broaching (EU-F07N) PM10	Baghouse	Y	>100	<100	100	Y	N
Compacted Graphite Iron process (PM)	Baghouse	Y	237	2.37	100	Y	N
Compacted Graphite Iron process (PM10)	Baghouse	Y	237	2.37	100	Y	N
Compacted Graphite Iron process (PM2.5)	Baghouse	Y	237	2.37	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Core Sand Mixing Platform (EU-F01) for PM and PM10, Phase 1 melting Process (EU-F04) for PM and PM10, Phase 2 melting process (EU-F05) for PM and PM10, Phase 3 melting process (EU-F19) for PM and PM10, M3 molding line (EU-F06) for PM and PM10, molding operatin (EU-F10) for PM and PM10, M3 sand cooler system (EU-F10A) for PM and PM10, molding operation (EU-F11) for PM and PM10, casting cleaning operation (EU-F12) for PM and PM10, Casting Cleaning Operation (EU-F13) for PM, Shot Blast (EU-F14) for PM and PM10, Casting Cleaning (EU-F15) for PM andPM10, Sand Handling (EU-F16) for PM and PM10, Head Grinding (EU-F06N) for PM and PM10, Block Broaching (EU-F07N) for PM and PM10, and fo CGI process for PM, PM10, and PM2.5. The Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

(b) 40 CFR 60, Subpart Dc (New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units) does not apply to Boiler #1, #2 or #3 even though these boilers each have a capacity greater than ten (10) million British

thermal units per hour because these boilers were constructed prior to June 9, 1989, the applicability date of this rule. In 1993, these boilers converted from firing coal to firing natural gas with distillate oil backup. Since this conversion did not result in an increase in a pollutant regulated under 40 CFR 60, Subpart Dc, the conversion is not considered a modification pursuant to 40 CFR 60.2.

(c) 40 CFR 60, Subpart Kb (New Source Performance Standards for Volatile Organic Liquid Storage Vessels) applies to the four (4) insignificant 12,000 gallon storage vessels used to store motor oil, used motor oil, and diesel fuel because they each have a capacity greater than forty (40) cubic meters and they were each constructed after July 23, 1984, the applicability date of this rule. Since these tanks have a storage capacity less than seventy-five (75) cubic meters, they are exempt from the general provisions (40 CFR 60 Subpart A) and from the provisions of 40 CFR 60, Subpart Kb except as specified in 40 CFR 60.116b(a) and (b). Pursuant to 40 CFR 60.116b(a) and (b) the source is required to keep records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels for the life of the source.

(d) The source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) - Iron and Steel Foundries (326 IAC 20-92 and 40 CFR Part 63, Subpart EEEEE). Pursuant to 40 CFR 63.7681 and 40 CFR 63.7765, the source is a gray iron foundry and is a major source of HAPs (as defined by 40 CFR 63.2).

Pursuant to 40 CFR 63.7682(b), Subpart EEEEE 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 gray iron foundry operations.

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source described in this section except when otherwise specified in 40 CFR Part 63, Subpart EEEEE.

Pursuant to 40 CFR 63.7682(c), the affected source is an existing affected source because construction commenced prior to December 23, 2002.

This source is subject to the following requirements of 40 CFR Part 63, Subpart EEEEE:

40 CFR 63.7681
40 CFR 63.7682
40 CFR 63.7683 (a), (b), (f)
40 CFR 63.7690 (a)(1), (a)(5), (a)(7), (a)(9), (a)(11), (b)(1), (b)(5)
40 CFR 63.7700 (a), (b), (c)(1)(i), (c)(2), (c)(3), (d), (e)(1), (e)(2)
40 CFR 63.7710 (a), (b)(1), (b)(2), (b)(3) - (b)(6)
40 CFR 63.7720
40 CFR 63.7730 (a), (b)
40 CFR 63.7731
40 CFR 63.7732 (a), (b)(1), (b)(2), (c)(1), (c)(2), (c)(4), (c)(5), (d), (e), (g), (h)
40 CFR 63.7733 (a), (d), (e), (f)
40 CFR 63.7734 (a)(1), (a)(5), (a)(7), (a)(9), (a)(11), (b)(1), (b)(5)
40 CFR 63.7735 (a), (b), (d)
40 CFR 63.7736 (a), (b), (c), (d)
40 CFR 63.7740 (a), (b), (f)
40 CFR 63.7741 (a), (b), (e), (f)
40 CFR 63.7742
40 CFR 63.7743 (a)(1), (a)(5), (a)(7), (b), (c)
40 CFR 63.7744 (a), (c)
40 CFR 63.7745
40 CFR 63.7746
40 CFR 63.7747 (c), (d)

40 CFR 63.7750 (a), (b), (d), (e)
40 CFR 63.7751
40 CFR 63.7752
40 CFR 63.7753
40 CFR 63.7760
40 CFR 63.7761
40 CFR 63.7765
Table 1 of Subpart EEEEE

The provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source except when otherwise specified in 40 CFR Part 63, Subpart EEEEE.

(e) One (1) stand-by diesel generator, identified as IS-E05, with maximum capacity of 325 horsepower, and manufactured in 1999 is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82. The units are subject to this subpart because they are stationary RICE located at an area source of HAP emissions. The units subject to Subpart ZZZZ are shown below:

One (1) natural gas-fired Emergency unit is subject to the following portions of 40 CFR 63, Subpart ZZZZ

(1) 40 CFR 63.6585
(2) 40 CFR 63.6590(a)(1)(ii)
(3) 40 CFR 63.6595(a)(1)
(4) 40 CFR 63.6602
(5) 40 CFR 63.6605
(6) 40 CFR 63.6625(e)(2) and (f)
(7) 40 CFR 63.6640(a), (b), (f)(1)
(8) 40 CFR 63.6645(a)(5)
(9) 40 CFR 63.6655(e)(2)
(10) 40 CFR 63.6660
(11) 40 CFR 63.6665

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, does not apply to the facilities described in this section in accordance with 40 CFR 63.6590(b)(3)(vii).

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it emits lead into the ambient air at levels equal to or greater than five (5) tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2012, and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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

(a) Opacity shall not exceed an average of thirty percent (30%) 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.

State Rule Applicability – Individual Facilities

State Rule Applicability - Engine Plant

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

(a) Tool grinding area (EU-04) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because it was constructed prior to January 1, 1980, the applicability date of this rule, and it does not individually have the potential to emit twenty-five (25) tons of VOC per year.

(b) The NGD spray paint booth (EU-02) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed after January 1, 1980, the applicability date of this rule, and has the potential to emit greater than twenty-five (25) tons of VOC per year because this facility is subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating).

(c) The NGD engine test cell area (EU-03A) and the engine test cell (NGDI) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though they were constructed after January 1, 1980, the applicability date of this rule, because they do not individually have the potential to emit twenty-five (25) tons of VOC per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

326 IAC 8-2-9 (Miscellaneous Metal Coating) applies to the NGD spray paint booth (EU-02) because it was constructed after November 1, 1980, it has the potential to emit greater than twenty-five (25) tons of VOC per twelve (12) consecutive month period, and the source's SIC code begins with 33. Pursuant to 326 IAC 8-2-9, the volatile organic compound (VOC) content of coating delivered to the applicator at the NGD spray paint booth (EU-02) shall be limited to 3.5 pounds of VOC per gallon of coating applied less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

State Rule Applicability - Coremaking Operations

326 IAC 6.5-1-2 (Particulate Emission Limitations)

This source is subject to the requirements of 326 IAC 6.5-1-2(a) (Particulate Emission Limitations) because Navistar is a foundry and none of the other subsections of the rule is applicable. Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from the core sand mixing platform (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) shall not exceed 0.03 grains per dry standard cubic feet.

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

(a) The core sand mixing platform (EU-F01), cold box core machines EU-F02A, EU-F02B, EU-F02C, and hot box core machines (EU-F03) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they were constructed prior to January 1, 1980, the applicability date of this rule, and they do not individually have the potential to emit twenty-five (25) tons of VOC per year.

(b) Cold box core machines EU-F02D through EU-F02M were constructed from 1985 to 1995. Based on emission estimates completed during this Part 70 review process, facilities EU-F02D through EU-F02M are subject to the requirements of 326 IAC 2-2 (PSD) and/or 326 IAC 8-1-6 (BACT). Therefore, the Permit Shield provided in Section B of this permit does not apply to those emission units with regards to 326 IAC 2-2 and 326 IAC 8-1-6. If it is determined that these facilities are subject to 326 IAC 2-2 and/or 326 IAC 8-1-6, the OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include: detailed requirements necessary to address the applicable provisions, and a schedule for achieving compliance with such requirements once this issue has been thoroughly reviewed.

(c) The core line is subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because it was constructed after January 1, 1980, the applicability date of this rule, and it has the potential to emit greater than twenty-five (25) tons of VOC per twelve (12) consecutive month period. Pursuant to 326 IAC 8-1-6, the source was required to reduce VOC emissions using best available control technology (BACT). A BACT analysis was performed as part of the application for SSM097-11392-00039, issued December 16, 1999. Pursuant to SSM097-11392-00039, issued December 16, 1999, the Permittee shall achieve an overall control efficiency of ninety-five percent (95%) for the acid scrubber controlling triethylamine (TEA) emissions from the cold box core machines (EU-28A). Additionally, the triethylamine emissions from the coldbox core machine (EU-28A) shall not exceed 0.75 pounds per hour. These limitations are equivalent to VOC emissions of seven and one-tenth (7.10) tons per twelve (12) consecutive month period.

State Rule Applicability - Melting Operations

326 IAC 6.5-1-2 (Particulate Emission Limitations)

This source is subject to the requirements of 326 IAC 6.5-1-2(e)(2) (Particulate Emission Limitations) because Navistar is a foundry and the melting process is affected by this subsection. Pursuant to 326 IAC 6.5-1-2(e)(2), particulate emissions from Phase III melting (EU-F19B) shall not exceed 0.07 grains per dry standard cubic feet.

326 IAC 6.5-6-26 (Particulate Matter Limitation-Marion County)

The following facilities are subject to the following limitations pursuant to 326 IAC 6.5-6-26 (International Truck and Engine Corporation & Indianapolis Casting Corporation) because this source and these facilities are specifically listed in 326 IAC 6.5-6-26:

Facility	Particulate Matter Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
Phase 1 Melting (EU-F04)	0.019	45.7
Phase 2 Melting (EU-F05)	0.020	53.5

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

The Phase 1 melting process (EU-F04) and the Phase 2 melting process (EU-F05) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they were constructed prior to January 1, 1980, the applicability date of this rule, and they do not individually have the potential to emit twenty-five (25) tons of VOC per year.

State Rule Applicability - Pouring/Cooling and Sand Handling Operations

326 IAC 6.5-1-2 (Particulate Emission Limitations)

This source is subject to the requirements of 326 IAC 6.5-1-2(a) (Particulate Emission Limitations) because Navistar is a foundry and none of the other subsections of the rule is applicable. Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from M3 mold casting cooling

operation (EU-F07), M1 mold pouring operation (EU-F08), M1 mold casting cooling operation (EU-F09), M3 mold pouring operation (EU-F17) and Compacted Graphite iron process shall not exceed 0.03 grains per dry standard cubic feet.

326 IAC 6.5 (Particulate Matter Limitation-Marion County)

The following facilities are subject to the following limitations pursuant to 326 IAC 6.5-6-26 (International Truck and Engine Corporation & Indianapolis Casting Corporation) because this source and these facilities are specifically listed in 326 IAC 6.5-6-26:

Facility	Particulate Matter Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
M3 Molding Line (EU-F06)	0.015	72.4
Molding Operation (EU-F10)	0.020	55.1
Molding Operation (EU-F11)	0.02	99.6

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

(a) The M1 mold pouring operation (EU-F08), M1 casting cooling operation (EU-F09), molding operation (EU-F10), and M3 mold pouring operation (EU-F17) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they were constructed prior to January 1, 1980, the applicability date of this rule, and they do not individually have the potential to emit twenty-five (25) tons of VOC per year.

(b) The M3 molding line (EU-F06), M3 casting cooling operation (EU-F07), and molding operation (EU-F11) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though they have the potential to emit greater than twenty-five (25) tons of VOC, each, per year because they were constructed prior to January 1, 1980, the applicability date of this rule.

(c) The casting line (EU-F18) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed after January 1, 1980, the applicability date of this rule, because it does not have the potential to emit twenty-five (25) tons of VOC per year.

State Rule Applicability - Casting Cleaning and Finishing Operations

326 IAC 6.5-1-2 (Particulate Emission Limitations)

This source is subject to the requirements of 326 IAC 6.5-1-2(a) (Particulate Emission Limitations) because Navistar is a foundry and none of the other subsections of the rule is applicable. Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from casting cleaning operation (EU-F12), I-shot blast machine (EU-F14), sand handling operation (EU-F16) shall not exceed 0.03 grains per dry standard cubic feet.

326 IAC 6.5-6 (Particulate Matter Limitation-Marion County)

The following facilities are subject to the following limitations pursuant to 326 IAC 6.5-6-26 (International Truck and Engine Corporation & Indianapolis Casting Corporation) because this source and these facilities are specifically listed in 326 IAC 6.5-6-26:

Facility	Particulate Matter Emission Limitation (gr/dscf)	Particulate Emission Limitation (ton/yr)
Casting Cleaning Operation (EU-F13)	0.02	62.0
Casting Cleaning Operation (EU-F15)	0.020	35.4

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

(a) The casting cleaning operation (EU-F12), casting cleaning operation (EU-F13), I-Shot blast machine (EU-F14), sand handling operation (EU-F16), head grinding operation (EU-F06N), and block broaching operation (EU-F07N) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they do not have the potential to emit VOC.

(b) The casting cleaning operation (EU-F15) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was modified after January 1, 1980, the applicability date of this rule, because it does not have the potential to emit twenty-five (25) tons of VOC per year.

State Rule Applicability - Insignificant Degreasing Operations

326 IAC 8-3-2 (Cold Cleaner Operation)

The insignificant degreasers are subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operation) because they were existing as of January 1, 1980, they are located in Marion County, and they are at a source that has the potential to emit greater than one hundred (100) tons of VOC per year. Pursuant to 326 IAC 8-3-2, 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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The insignificant degreasers are subject to the requirements of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) because they were existing as of July 1, 1990, they are located in Marion County, and they do not have remote solvent reservoirs.

(a) Pursuant to 326 IAC 8-3-5(a), the Permittee shall ensure that the following control equipment requirements are met:

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

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

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)),

then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

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

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

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

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

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

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

(b) Pursuant to 326 IAC 8-3-5(b), 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.

State Rule Applicability - Insignificant IS-E01, IS-E02, IS-E03, IS-E04, IS-E05, IS-E06, IS-F01, IS-F04, and Grinding and Machining Operations

326 IAC 6.5-1-2 (Particulate Emission Limitations)
This source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate Emission Limitations) because Navistar is a foundry.

(a) Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from the stand-by diesel generator (IS-E05), trimmer (IS-E06), grinding and machining operations, miscellaneous grinding operations (IS-E03), sand storage silos (IS-F01), and sand mixing operations (IS-F04) shall not exceed 0.03 grains per dry standard cubic feet.

(b) Pursuant to 326 IAC 6.5-1-2(b)(2), particulate emissions from the distillate oil-fired boiler (IS-E02) shall not exceed 0.15 pound per million British thermal units per hour.

326 IAC 2-4.1 (New Source Toxics Control)
The requirements of this rule do not apply to emission units constructed prior to the July 27, 1997 applicability date. The following emission units constructed or modified after July 27, 1997,

identified as EU-F06N, EU-F07N, EU-F15, EU-F19, EU-28B, EU-28C, EU-28D, IS-E02, IS-E03, IS-E04, IS-E05, IS-E06, IS-E07, IS-F01 IS-F04, IS-F05, IS-20, and IS-21, each do not have a potential to emit greater than ten (10) tons per year of a single HAP or a potential to emit twenty-five (25) tons per year of combined HAP. Therefore, the requirements of this rule do not apply to this source.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
This source is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because it is subject to the requirements of 326 IAC 6.5 (Particulate Matter Limitation Except Lake County)

Compliance Determination and Monitoring Requirements

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

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

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

1. The engine plant spray booth (EU-E02) has applicable compliance monitoring conditions as specified below:

   (a) To monitor the performance of the water curtain, daily observations shall be made of the water curtain pumps to ensure they are functioning properly. In addition, weekly observations shall be made of the overspray from the NGD paint spray booth (EU-02) stack, SV-04, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

   (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

   These monitoring conditions are necessary because the paint booth and water curtains must operate properly to ensure compliance with 326 IAC 5-1 (Opacity Limitations), 326

IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 6-1-2 (Nonattainment Particulate Emission Limitations), and 326 IAC 2-7 (Part 70 Permit Program).

2. The following controls have applicable compliance monitoring requirements as specified below:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Snow Room Dust Collector	Pressure Drop	Daily	2.0 to 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
EM-3B Baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
M3 baghouse	Pressure Drop	Daily	3.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase III South baghouse and Phase V baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase III North baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase IV baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase VII baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase V baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase VI baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase I baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Phase VIII baghouse	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Baghouse controlling (EU-F06N), Stack (SV-06N)	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Baghouse controlling (EU-F07N), Stack (SV-07N)	Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

3. The casting cleaning and finishing operations (EU-F12, EU-F13, EU-F14, EU-F15, and EU-F16) have applicable compliance monitoring conditions as specified below:

Summary of Testing Requirements				
Emission Unit	**Control Device**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
M3	baghouse	PM	5 years	0.015 g/dscf
Phase III North	baghouse	PM	5 years	0.020 g/dscf
Phase III South	baghouse	PM	5 years	
Phase IV	baghouse	PM	5 years	0.02 g/dscf
Phase V	baghouse	PM	5 years	0.02 g/dscf

Casting cleaning operation (EU-F13)	baghouse	PM	5 years	0.208 lb/ton of metal
Waste and sand handling operations (EU-F16)	baghouse	PM	5 years	5.68 lb/hr
Waste and sand handling operations (EU-F16)	baghouse	PM10	5 years	3.40 lb/hr
Casting cleaning operation (EU-F15)	baghouse	PM	5 years	0.02 g/dscf

4. The Compacted Graphite Iron Process has applicable compliance monitoring conditions as specified below:

Testing Requirements:

Emission Unit	Control Device	Pollutant	Frequency of Testing	Limit or Requirement
Compacted Graphite Iron process	Baghouse	PM, PM10 and PM2.5	5 years	326 IAC 2-2 326 IAC 2-1.1-5 and 326 IAC 6.5-1

Compliance Monitoring:

Facilities	Control	Parameter	Frequency	Range	Excursions and Exceedances	Limits or Requirements
Compacted Graphite Iron process, stack SV-28	Baghouse	Water Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps	326 IAC 2-2, 326 IAC 6.5-1 and 40 CFR 60
		Visible Emissions		Normal-Abnormal		

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 003-24467-00224. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1: In order to account for the division in the airflow in the Compacted Graphite Iron, Condition D.3.3 is changed as follows:

D.3.3 PSD Minor Limit and Nonattainment NSR [326 IAC 2-2] [326 IAC 2-1.1-5]

The Permittee shall comply with the following for the Compacted Graphite Iron (CGI) constructed in 2011:

(a) PM emissions shall not exceed 24.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

PM = [P x (**0.2**PMu + **0.8**PMc)] / 2000 lbs/ton

...

(b) PM_{10} emissions shall not exceed 14.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

PM_{10} = [P x (**0.2**PM_{10}u + **0.8**PM_{10}c)] / 2000 lbs/ton

...

(c) $PM_{2.5}$ emissions shall not exceed 9.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

$PM_{2.5}$ = [P x (**0.2**PM_{10}u + **0.8**PM_{10}c)] / 2000 lbs/ton

...

Change 2: The permit has been modified to delete removed units as follows:

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

...
(f)

(1) ~~Two (2)~~ **One (1)** stand-by diesel generator~~s~~, identified as ~~IS-E04 and~~ IS-E05, with a maximum capacity of 225 and 325 horse power~~, respectively~~. [326 IAC 6-1-2]

...

SECTION D.5 FACILITY OPERATION CONDITIONS

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

...

(d) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower which include the following:

(1) ~~Two (2)~~ **One (1)** stand-by diesel generator~~s~~, identified as ~~IS-E04 and~~ IS-E05, with a maximum capacity of ~~225 and~~ 325 horse power~~, respectively~~. [326 IAC 6.5-1-2]

...

Change 3: To be consistent with terminology used at the source, Condition A.2 and Section D.3 are changed as follows:

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:

Coremaking Operations

(c) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

...

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by ~~an acid scrubber~~ **wet scrubber #1**, and exhausting through stack SV-28A.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

...

(i) One (1) core line collectively identified as emission unit EU-28, constructed in 1999, with a maximum capacity of 7.9 tons of cores per hour, consisting of the following:

...

(2) Three (3) cold box core machines, each with its own mixer, collectively identified as EU-28A, each having a maximum capacity of 2.63 tons cores per hour with a nominal resin content of 2.5% and with a nominal catalyst gas usage rate of 1.9 pounds per ton of cores with amine gas emissions controlled by ~~acid scrubber~~ **wet scrubber #1**, and exhausting through stack SV-28A. EU-28A is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

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

Change 4: Some stacks were reconfigured at the source. Therefore, Condition A.2 and Section D-3 are changed as follows:

Molding, Pouring/Cooling and Sand Handling Operations

...

(i) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks **SV-19A and SV-19B** ~~SV-18A through SV-18C~~. EUF08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(j) One (1) M1 mold casting cooling (Fume Tunnel M1) operation, identified as emission unit EU-F09, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A ~~through SV-19D~~ **and SV-19B**.

...

SECTION D.3 FACILITY OPERATION CONDITIONS

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

Molding, Pouring/Cooling and Sand Handling Operations

...

(o) One (1) M1 mold pouring operation, identified as emission unit EU-F08, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks **SV-19A and SV-19B** ~~SV-18A through SV-18C~~. EU-F08 is considered part of the affected source under 40 CFR 63, Subpart EEEEE.

(p) One (1) M1 mold casting cooling (Fume Tunnel M1) operation, identified as emission unit EU-F09, constructed in 1957, with a maximum capacity of thirty (30) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-19A ~~through SV-19D~~ **and SV-19B**.

...

Change 5: For clarification and to correct a typographical error, Condition A.2 is changed as follows:
...

(n) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A, SV-27B and SV-27C. EUF17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation**,** ~~will be~~ modified in 2011**, includes** ~~to include~~: One Compacted Graphite Iron (CGI) ladle metallurgy **process, consisting of two** station**s**; with a capacity of 30 tons/hour, 80% of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-~~28~~ **35**. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

...

SECTION D.3 FACILITY OPERATION CONDITIONS

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

Molding, Pouring/Cooling and Sand Handling Operations

...

(t) One (1) M3 mold pouring operation, identified as emission unit EU-F17, constructed in 1974, with a maximum capacity of sixty (60) tons of metal poured per hour, with emissions uncontrolled, and exhausting through stacks SV-27A, SV-27B and SV-27C. EUF17 is considered part of the affected source under 40 CFR 63, Subpart EEEEE. The M3 mold pouring operation**,** ~~will be~~ modified in 2011**, includes** ~~to include~~: One Compacted Graphite Iron (CGI) ladle metallurgy **process, consisting of two** station**s**; with a capacity of 30 tons/hour, 80% of particulate emissions controlled by a baghouse identified as the Phase 14 Dust Collector, exhausting to Stack SV-~~28~~ **35**. CGI molds will be poured at the existing M-1 pouring station and then will return to the M-3 casting line.

...

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

Change 6: For clarification, Condition A.3 is changed as follows:

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

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

...

(c) ...

(1) One (1) distillate oil-fired boiler, **for emergency purposes only,** reconstructed in 2002, identified as IS-E02, located in pump house building #37, with a maximum capacity of 1.5 million British thermal units per hour. [326 IAC 6.5-1-2(b)(2)]

...

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities
...

(c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five tenths (0.5) percent sulfur by weight which include the following:

(1) One (1) distillate oil-fired boiler, **for emergency purpose,** reconstructed in 2002, identified as IS-E02, located in pump house building #37, with a maximum capacity of 1.5 million British thermal units per hour. [326 IAC 6.5-1-2(b)(2)]

...

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

Change 7: The source requested adding the CNC machines to the permit. The CNC machine is a computerized drill press and has no emissions associated. Also, for clarification, the woodworking operation is moved from A.3 to A.4. Sections A.3, A.4 and D.5 are changed as follows:

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

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

...

(i) Emission units with PM and PM10 emissions less than five (5) tons per year, SO2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year which include the following:

(1) One (1) miscellaneous grinding operation, identified as IS-E03, controlled by multi-clones and vented inside. [326 IAC 6.5-1-2]

(2) Laser welders. [326 IAC 6.5-1-2]

(3) Induction Hardening heat treatment operations. [326 IAC 6.5-1-2]

(4) Holding furnaces. [326 IAC 6.5-1-2]

~~(5) One (1) woodworking operation controlled by a cyclone. [326 IAC 6.5-1-2]~~

(5) CNC machines

...

A.4 Non-Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)]

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

...

(cc) Routine 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, including:

One (1) woodworking operation controlled by a cyclone

SECTION D.5 FACILITY OPERATION CONDITIONS

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

...

(g) Emission units with PM, ~~and~~ PM10**, and PM2.5** emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year which include the following:

...

~~(7) One (1) woodworking operation controlled by a cyclone. [326 IAC 6.5-1-2]~~

(7) CNC machines

...

Change 8: To incorporate the removal of 2 drying ovens and for clarification, Condition A.3 and Section D.5 are changed as follows:

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

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

(l) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour which include the following:

(1) ~~Seven (7)~~ **Five (5)** natural gas-fired drying ovens located with the cold box core machines collectively identified as emission unit EU-F02, each with an input heat capacity of less than 10 MMBtu/hr. ~~, consisting of the following sizes:~~

~~(A) Two (2) rated at 1.60 MMBtu/hr. [326 IAC 6.5-1-2]~~
~~(B) Three (3) rated at 3.60 MMBtu/hr. [326 IAC 6.5-1-2]~~
~~(C) One (1) rated at 3.2 MMBtu/hr. [326 IAC 6.5-1-2]~~
~~(D) One (1) rated at 4.00 MMBtu/hr. [326 IAC 6.5-1-2]~~

(2) One (1) natural gas-fired drying oven rated at 3.60 MMBtu/hr located with the **Loramendi** core line identified as emission unit EU-28. [326 IAC 6.5-1-2]

(3) One (1) 2.5 MMBtu/hr Hagan Oven, identified as EU-F21. [326 IAC 6.5-1-2]

SECTION D.5 FACILITY OPERATION CONDITIONS

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

...

(1) Seven (7) natural gas-fired drying ovens located with the cold box core machines collectively identified as emission unit EU-F02, consisting of the following sizes:

(A) Two (2) rated at 1.60 MMBtu/hr. [326 IAC 6.5-1-2]

(B) Three (3) rated at 3.60 MMBtu/hr. [326 IAC 6.5-1-2]

(C) One (1) rated at 3.2 MMBtu/hr. [326 IAC 6.5-1-2]

(D) One (1) rated at 4.00 MMBtu/hr. [326 IAC 6.5-1-2]

(2) One (1) natural gas-fired drying oven rated at 3.60 MMBtu/hr located with the **Loramendi** core line identified as emission unit EU-28. [326 IAC 6.5-1-2]

...

...

Change 9: To incorporate the correct citation and for additional clarification, Condition A.4 is changed as follows:

A.4 Non-Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)]
This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21), which are not specifically regulated:

...

(f) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels **[326 IAC 2-7-1(21)(K)(i)(AA)**:

(1) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.

(2) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight. ~~[326 IAC 2-7-1(21(G)(i)]~~

(3) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

Change 10: There may be times when it is unnecessary for a responsible official to "certify" additional information requested by IDEM; therefore, Conditions B.7 and B.8 are revised as follows:

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 a 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) ...

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

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

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

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

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

(1) it contains a certification by a "responsible official", as defined by 326 IAC 2-7-1 (34), and

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

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

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

Change 11: The emergency provisions requirements have been clarified as follows:

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

~~(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) for each facility as described in 326 IAC 1-6-3. At a minimum, the PMP shall include:~~

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

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

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

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

The Permittee shall implement the PMPs.

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

(1) Identification of the individual(s) ~~(by job title or description)~~ responsible for inspecting, maintaining, and repairing emission control devices;

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

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(~~b~~**c**) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to **an exceedance of any** limitation on emissions ~~for that unit~~. The PMPs do not require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

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

Change 12: The emergency provisions requirements have been clarified as follows:

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

(a) (b) ...

(1) - (3) ...

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, ~~within~~ **no later than** four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

...

(5) ...

~~within~~ **no later than** 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) - (C) ...

The notification which shall be submitted by the Permittee does not require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

(6) ...

...

Change 13: IDEM has removed the Condition B.14, Deviations from Permit Requirements and Conditions, and moved the requirements to Condition C.21, General Reporting Requirements, as follows:

~~B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]~~

~~(a) Deviations from any permit requirements for any deviation for which a report is specifically required under Section D (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 and Enforcement Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~MC 61-53, IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

~~using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Notwithstanding this condition, 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.~~

Change 14: The General Reporting Requirements have been clarified as follows:

~~C.19~~**16** General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(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 **except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.** This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). **A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.**

(b) ~~Reports required by conditions in Section D of this permit shall be submitted to~~ **The address for report submittal is**:

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

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

~~(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted no later than thirty (30) days after the end of the reporting period. Unless otherwise specified in this permit, all reports required in Section D do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(e)~~**(d)** 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.

Change 15: The Permit Modification, Reopening, Revocation and Reissuance, or Termination provisions have been clarified as follows:

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

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

...

Change 16: The Permit Renewal requirements have been clarified as follows:

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

...

(b) ...

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

Change 17: The words "or notice" have been added to Condition B.19(a) as follows:

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

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

(b) ...

Change 18: The Operational Flexibility provisions have been clarified as follows:

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

...

(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~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

...

Change 19: The Transfer of Ownership or Operational Control provisions have been clarified as follows:

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

...

(b) ...

~~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).~~

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

...

Change 20: The Opacity requirements have been clarified as follows:

C.2 Opacity [326 IAC 5-1]

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

(a) - (b) ...

Change 21: The Incineration requirements have been clarified as follows:

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

Change 22: The Performance Testing requirements have been clarified as follows:

C.7 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~~ **For performance testing required by this permit, a** test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "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 **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period. The extension request submitted by the Permittee does not require **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

Change 23: The Compliance Monitoring requirements have been clarified as follows:

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

~~Unless otherwise specified in this permit, for all monitoring and record keeping requirements not already legally required shall be implemented not later than ninety (90) days after permit issuance. The Permittee shall be responsible for installing any equipment described in Section D 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:~~

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

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

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

The notification which shall be submitted by the Permittee does require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

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

Change 24: The general requirements for Monitoring Methods were removed from Section C as follows (This provision will be included as needed in Section D of the permit.):

~~C.12 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 applicable 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.~~

Change 25: IDEM is revising Condition C.15 as follows:

C.1~~5~~**2** Response to Abnormal or Out-of-Range Compliance Monitoring Measurements [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting a measurement required by a compliance monitoring condition of this permit that is outside the normal or usual range of values for the monitoring parameter, the Permittee shall **take reasonable steps to** restore operation of the emissions unit(s) (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing **excess** emissions.

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

(1) initial inspection and evaluation;

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

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

(c) A determination of whether the Permittee has used acceptable procedures in response to a measurement indicating abnormal or out-of-range values will be based on information available, which may include, but is not **necessarily** limited to, the following:

(1) monitoring results;

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

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

...

Change 26: IDEM is revising Condition C.16 as follows:

C.1~~6~~**3** 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~~ **its** response actions to IDEM, OAQ, no later than ~~thirty (30)~~ **seventy-five (75)** days after ~~receipt~~ **the date** 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~~ **no later than** one hundred ~~twenty (120)~~ **eighty (180)** days ~~of receipt~~ **after the date** of the ~~original~~ test ~~results~~. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred ~~twenty (120)~~ **eighty (180)** days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) ...

The response action documents submitted pursuant to this condition do require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "responsible official" as defined by 326 IAC 2-7-1(34).

Change 27: IDEM is revising paragraph (a) of Condition C.17 as follows:

C.1~~7~~**4** 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(b)(1), the Permittee shall submit ~~by~~ **no later than** 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)~~**(a)** Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50, IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require ~~the~~ **a** certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a** "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.~~

Change 28: The General Record Keeping requirements have been revised as follows:

C.1~~8~~**5** General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) ...

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

(c) - (d) ...

Change 29: The Stratospheric Ozone Protection requirements have been revised as follows:

C.~~20~~**17** 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~~ **applicable** 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.~~

Change 30: IDEM is changing the Preventive Maintenance Plan conditions throughout Section D of the permit as follows:

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

~~A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the "Snow Room" Dust Collector.~~ **A Preventive Maintenance Plan (PMP) is required for the 'Snow Room" Dust Collector. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.**

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

~~A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the EM-3B baghouse.~~ **A Preventive Maintenance Plan (PMP) is required for the EM-3B baghouse. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.**

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the control devices associated with M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and shakeout operation (EU-F11).~~ **A Preventive Maintenance Plan (PMP) is required for the control devices associated with M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and shakeout operation (EU-F11). Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.**

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for any control devices listed in Section D.4.~~ **A Preventive Maintenance Plan (PMP) is required for any control devices listed in Section D.4. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.**

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

~~A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for any control devices listed in Section D.6.~~ **A Preventive Maintenance Plan (PMP) is required for any control devices listed in Section D.6. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan.**

Change 31: IDEM is changing the Visible Emissions Notations throughout Section D of the permit as follows:

D.1.7 Visible Emissions Notations

...

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit. **Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.**

D.2.6 Visible Emissions Notations

...

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit. **Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.**

D.3.7 Visible Emissions Notations

...

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit. **Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.**

D.4.7 Visible Emissions Notations

...

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit. **Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.**

D.6.6 Visible Emissions Notations

...

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit. **Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.**

Change 32: IDEM is changing the Parametric Monitoring throughout Section D of the permit as follows:

D.1.8 Parametric Monitoring

(a) The Permittee shall record the overall pressure drop across the "Snow Room" dust collector used in conjunction with the sand handling system (EU-F01), at least once per day when the process is in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 6.0 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 Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response ~~steps in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements,~~ shall be considered a deviation from this permit.

...

D.2.7 Parametric Monitoring

(a) The Permittee shall record the overall pressure drop across the EM-3B baghouse used in conjunction with the Phase III dryer, at least once per day when the Phase III dryer is in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response ~~steps in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit.

...

D.3.8 Parametric Monitoring

(a) The Permittee shall record the overall pressure drop across each of the baghouses used in conjunction with the M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and casting vibratory conveyor casting cooling operation (EU-F11) and Compacted Graphite Iron process at least once per day when the M3 molding line (EU-F06), molding operation (EU-F10), M3 sand cooler system (EU-F10A), and/or casting vibratory conveyor casting cooling operation (EU-F11) and Compacted Graphite Iron process are in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response ~~steps in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~ shall be considered a deviation from this permit.

...

D.4.8 Parametric Monitoring

(a) The Permittee shall record the overall pressure drop across the baghouses used in conjunction with the casting cleaning operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EU-F14), casting cleaning operation (EU-F15), and waste sand handling operation (EU-F16) at least once per day when the casting cleaning operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EU-F14), casting cleaning operation (EU-F15), and sand handling operation (EU-F16) are in operation. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-~~

~~Range Compliance Monitoring Measurements,~~ shall be considered a deviation from this permit.

...

D.6.7 Parametric Monitoring

(a) The Permittee shall record the overall pressure drop across the baghouses used in conjunction with the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) at least once per day when the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) are in operation and venting to the atmosphere. When for any one reading, the overall pressure drop across the baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements~~. **Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** An overall pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps ~~in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements,~~ shall be considered a deviation from this permit.

...

Change 33: IDEM is changing the Compliance Determination Requirements throughout Section D of the permit as follows:

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

In order to **ensure compliance** ~~comply~~ with Conditions D.1.3 and D.1.4, the "Snow Room" dust collector and small dust collector for particulate control shall be in operation and control emissions from the sand handling system (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) at all times that the sand handling system (EU-F01) and sand receiving bins (EU-28B, EU-28C, EU-28D) associated with the respective control device are in operation.

D.2.4 Particulate Control [326 IAC 2-7-6(6)]

In order to **ensure compliance** ~~comply~~ with Condition D.2.2, the EM-3B baghouse shall be in operation and control emissions from the Phase III dryer at all times that the Phase III dryer is in operation. The EM-1, EM-2 and EM-3 baghouses are subject to conditions set forth in Section E of this permit.

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) On or before August 21, 2012, in order to demonstrate **the** compliance **status** with Condition D.2.1(a), the Permittee shall perform PM testing for the baghouses associated with the Phase II Melting Process (EU-F05), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(b) On or before February 20, 2013, in order to demonstrate **the** compliance **status** with Condition D.2.1(a), the Permittee shall perform PM testing for the baghouses associated with the Phase I Melting Process (EU-F04), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) On or before August 22, 2012, in order to demonstrate **the** compliance **status** with Conditions D.2.1(b) and D.2.2(a) and (b), the Permittee shall perform PM and PM10 testing for the Phase III dryer (EU-F19A) and the grey iron electric induction furnaces (EU-F19B), utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.. PM10 includes filterable PM10 and condensable PM.

(d) On or before August 22, 2012, in order to demonstrate **the** compliance **status** with Conditions D.2.2(c), the Permittee shall perform lead testing for EU-F19A and EU-19B, utilizing methods as approved by the Commissioner. This test shall be repeated within every five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

D.3.5 Particulate Control [326 IAC 2-7-6(6)]

In order to **ensure compliance** ~~comply~~ with Conditions D.3.2 and D.3.3, the CGI, M3, Phase III North, Phase III South, Phase IV, and Phase V baghouses shall be in operation and control emissions from the CGI, M3 molding line (EUF06), molding operation (EU-F10), and molding operation (EU-F11) operations at all times that the operations associated with the respective control device are in operation.

D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) On or before December 31, 2011, in order to demonstrate **the** compliance **status** with Condition D.3.2, the Permittee shall perform PM testing for the, M3, Phase III North, Phase III South, Phase IV, and Phase V baghouses utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(b) In order to demonstrate **the** compliance **status** with Condition D.3.1, the Permittee shall perform PM testing for M3 mold pouring operation (EU-F17) on or before May 8, 2012, M1 mold pouring operation (EU-F08) on or before March 27, 2013, and utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

(c) Within one hundred and eighty (180) days after the operation of the CGI process, in order to ~~determine~~ **demonstrate the** compliance **status** with Condition D.3.3, the Permittee shall perform the inlet and outlet PM, PM10 and PM2.5 testing on Compacted Graphite

Iron process baghouse utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

D.4.5 Particulate Control [326 IAC 2-7-6(6)]

In order to **ensure compliance** ~~comply~~ with Conditions D.4.1, D.4.2, and D.4.3, the Phase VII, Phase V, Phase VI, Phase I, and Phase VIII baghouses shall be in operation and control emissions from the casting cleaning operation (EU-F12), casting cleaning operation (EU-F13), I-shot blast machine (EUF14), casting cleaning operation (EU-F15), and waste sand handling operation (EU-F16), at all times that the operations associated with the respective control device are in operation.

D.4.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) ~~On or before December 31, 2011, i~~**I**n order to demonstrate **the** compliance **status** with Conditions D.4.1(a)(2), D.4.1(d), D.4.2 and D.4.3, the Permittee shall perform PM testing on the casting cleaning operation (EU-F13); PM and PM10 testing on Phase VIII baghouse controlling waste sand handling operations (EU-F16); and PM testing on the Phase I baghouse controlling casting cleaning operations (EU-F15), utilizing methods as approved by the Commissioner. All emission units venting to the Phase V baghouse shall be in operation during the stack test. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

(b) On or before March 1, 2014, in order to demonstrate **the** compliance **status** with Conditions D.4.1(b)(2), D.4.1(c)(2), and D.4.2, the Permittee shall perform PM and PM10 testing on the casting cleaning operation (EU-F12), and I-shot blast machine utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

(c) The PM10 testing required in Condition D.4.6(a) and (b) above shall include the testing of condensable PM emissions only if U.S. EPA's final rule establishing a revised or new test method for condensable PM has become effective no later than thirty-five (35) days prior to the testing deadline. If U.S. EPA's revised or new test method has not been finalized no later than thirty-five (35) days prior to the testing deadline, the Permittee may either petition IDEM for an extended deadline to complete the tests after the revised or new test method becomes effective or perform the tests without measuring condensable PM. If the testing required in Condition D.4.6(a) or (b) has been completed without measuring condensable PM prior to U.S. EPA's finalization of a revised or new test method for condensable PM, Permittee shall complete the PM10 testing including condensable PM within 180 days of the effective date of U.S. EPA's final revised or new test method for condensable PM.

D.5.4 Particulate Control

In order to **ensure compliance** ~~comply~~ with Condition D.5.3, the dust collectors, fabric filters, dry filters, and multi-clones shall be in operation and control emissions from the insignificant activities

described in this Section D.5(e), (f) and (g) at all times that the operations associated with the respective control device are in operation.

D.6.4 Particulate Control

In order to **ensure compliance** ~~comply~~ with Conditions D.6.1 and D.6.2, the head grinding and block broaching baghouses shall be in operation and control emissions from the head grinding operation (EU-F06N) and block broaching operation (EU-F07N) at all times that the operations associated with the respective control device are in operation.

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

The Permittee shall perform PM and PM10 testing prior to June 13, 2010 or within 180 days of startup. In the event the equipment is idled prior to June 13, 2010, in order to demonstrate **the** compliance **status** with Condition D.6.1. The Permittee shall perform PM and PM10 testing on the head grinding operation (EU-F06N) and block broaching operation (EU-F07N), utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition. PM10 includes filterable PM10 and condensable PM.

Change 34: IDEM is changing the Record Keeping Requirements throughout Section D of the permit as follows:

D.1.10 Record Keeping Requirements

(a) **In order to** ~~To~~ document the compliance status with Condition D.1.7, the Permittee shall maintain records of visible emission notations of SV-10A stack exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) **In order to** ~~To~~ document the compliance status with Condition D.1.8, the Permittee shall maintain records once per day of the overall pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

...

D.2.9 Record Keeping Requirements

(a) **In order to** ~~To~~ document the compliance status with Condition D.2.6, the Permittee shall maintain records of once per day visible emission notation of SV-33a stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) **In order to** ~~To~~ document the compliance status with Condition D.2.7, the Permittee shall maintain records of the overall pressure drop once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) I**n order to** ~~To~~ document the compliance status with Condition D.2.2, the Permittee shall keep monthly records of the tons of metal melted in the Phase III melting process.

...

D.3.10 Record Keeping Requirements

(a) **In order to** ~~To~~ document the compliance status with Condition D.3.7, the Permittee shall maintain records of once per day visible emission notations of SV-16A, SV-16B, SV-20A, SV-20B, SV-20C, SV-21A, SV-21B, SV-21C, SV-21D,SV-28 and SV-23 a, b and c stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) **In order to** ~~To~~ document the compliance status with Condition D.3.8, the Permittee shall maintain records of the overall pressure drop across the baghouses once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

...

D.4.10 Record Keeping Requirements

(a) **In order to** ~~To~~ document the compliance status with Condition D.4.1(a), the Permittee shall maintain monthly records of the amount of castings grinded at the I-Block and V-Block grinders (EU-F13).

(b) **In order to** ~~To~~ document the compliance status with Condition D.4.1(b), the Permittee shall maintain records of the metal throughput to the V-shot blast machine (EU F-12).

(c) **In order to** ~~To~~ document the compliance status with Condition D.4.1(c), the Permittee shall maintain monthly records of the metal throughput to the I-Shot blast machine (EU-F14).

(d) **In order to** ~~To~~ document the compliance status with Condition D.4.7, the Permittee shall maintain records of once per day visible emission notations of SV-22, SV-23A SV-23B, SV-23C, SV-24, SV-25A, SV-25B, and SV-34 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(e) **In order to** ~~To~~ document the compliance status with Condition D.4.8, the Permittee shall maintain records of the overall pressure drop once per day. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

...

D.6.9 Record Keeping Requirements

(a) **In order to** ~~To~~ document the compliance status with Condition D.6.6, the Permittee shall maintain records of daily visible emission notations of SV-06N and SV-07N stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) **In order to** ~~To~~ document the compliance status with D.6.7, the Permittee shall maintain records of the overall pressure drop across the baghouses. The Permittee shall include in its daily record when an overall pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

...

Change 35: IDEM is changing the Reporting Requirements throughout Section D of the permit as follows:

D.2.10 Reporting Requirements

A quarterly summary of the information to document compliance **status** with Condition D.2.2(f) shall be submitted to IDEM at the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance **status** with Conditions D.4.1(a), D.4.1(b) and D.4.1(c) shall be submitted to IDEM at the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Change 36: The emergency Occurrence Report has been updated as follows:

EMERGENCY OCCURRENCE REPORT

...

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

- The Permittee must notify the Office of Air Quality (OAQ), ~~within~~ **no later than** four (**4**) **daytime** business hours (1-800-451-6027 or 317-233-0178, ask for Compliance and Enforcement Branch); and
- The Permittee must submit notice in writing or by facsimile ~~within~~ **no later than** two (**2**) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

...

~~Attach a signed certification to complete this report.~~

Change 37: The Quarterly Reports have been updated as follows:

Part 70 Quarterly Report

...

~~Attach a signed certification to complete this report.~~

Change 38: The Quarterly Deviation and Compliance Monitoring Report have been updated as follows:

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

...

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements **of this permit**, the date(s) of each deviation, the probable cause of the deviation, and

the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

...

~~Attach a signed certification to complete this report.~~

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on September 12, 2011.

Conclusion

The operation of this stationary grey iron foundry and engine testing and assembly source shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T097-30905-00039.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Ghassan Shalabi at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-5378) or toll free at 1-800-451-6027 extension (4-5378).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
2.5	1000	21.9

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission i	0.0	0.1	0.1	0.0	1.1	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in l	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission i	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05

2.066E-02

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See Page 3 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	1,314	0.0	0.0
Summed Potential Emissions in tons/yr	1,314		
CO2e Total in tons/yr	1,322		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x

Appendix A: Emission Calculations
Compacted Graphite Iron Process

Company Name: Navistar, Inc
Plant Location: 5565 Brookville Road, Indianapolis, IN 46219
Permit Number 097-30905-00039
Permit Reviewer: Ghassan Shalabi
Date 18-Jan-11

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Compacted Graphite Iron	30.0	PM	1.80	237	2.37	baghouse	99.00%
		PM-10	1.80	237	2.37	baghouse	99.00%
		PM2.5	1.80	237	2.37	baghouse	99.00%
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
		VOC	0.01	0.66	0.66		
		CO	0.00	0.00	0.00		

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-003-21

Appendix A: Emissions Calculations
EU-E02 - Spray Paint Booth

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-E02	Application Method	Spraying
Description	NGD Booth	Type of Spray Dev.	LPHV
Stack ID	SV-04	Over Spray Control	Water Wash
Stack Flowrate (acfm)	49,000	PM Control Eff.	90.00%
Drying oven fuel	Natural Gas	Coating App. to	Engines
Drying oven temp.(F)	84		
Heating Input (mmBtu/hr)	3.5		
Date Installed	1994		
Date Modified	1997	(this modification involved the installation of two robotic arms)	

Potential to Emit
Paint Booth

Material	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating
Engine Enamel	8.9	67.99%	52.8%	15.2%	56.3%	25.20%	0.08100	55.810	3.09	1.35
Primer	8.4	73.19%	54.4%	18.8%	54.8%	24.00%	0.08100	55.810	3.49	1.58
Cleaning Solvent (1)	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	NA	NA	NA	NA

(1) According to ICC the maximum cleanup solvent usage is 50 gallons per year.

Material	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	PM10 (2) Potential ton/yr	PM2.5 Potential tons/yr	lb VOC /gal solids	Transfer Efficiency
Engine Enamel	6.10	146.35	26.71	33.77	15.87	15.87	5.35	40%
Primer	7.13	171.04	31.21	26.72	12.56	12.56	6.57	40%
Cleaning Solvent	0.04	0.95	0.17	NA	0.00	0.00	NA	NA
Total			**58.10**	**60.49**	**28.43**	**28.43**		

(2) Using AP-42 Appendix B.1-12, the fraction of PM10 is conservatively estimated at 47%.

Material	Glyco Ether % by Wt.	MIBK % by Wt.	Toluene % by Wt.	Glyco Ether Emissions (tons/yr)	MIBK Emissions (tons/yr)	Toluene Emissions (tons/yr)
Engine Enamel	8.13%	0.00%	0.0%	1.61	0.00	0.00
Primer	5.63%	0.00%	0.0%	1.11	0.00	0.00
Cleaning Solvent	0.0	1.80%	54.0%	0.00	0.003	0.09
				2.72	**0.00**	**0.09**

Drying Oven Combustion Emissions

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC
Source of Emission Factor	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4
Emission Factor	7.6	7.6	1.9	0.6	100	84	5.5
Units	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf
Emissions (tons/yr)	0.03	0.03	0.01	0.00	0.35	0.29	0.02

Allowable Emissions

Emission Unit	Pollutant	Regulation	Limit	Units	Limit	Units
EU-E02	PM	326 IAC 6.5-1-2(a)	0.03	gr/dscf	NA	NA
	PM	326 IAC 2-2	0.013	gr/dscf	24	tons/yr
	PM-10	326 IAC 2-2	0.008	gr/dscf	15	tons/yr
	PM-2.5	326 IAC 2-2	0.008	gr/dscf	15	tons/yr
	VOC(1)	326 IAC 2-2	57.92	ton/yr	NA	NA
	VOC	326 IAC 8-2-9	3.5	lbs VOC/gal c.	NA	NA

(1) Net emissions increase after netting is less than 40 tons per year therefore the PSD regulation is not applicable

Netting Analysis

	VOC
Potential to Emit for the NGD Paint Booth	57.92
Net Emissions Increase over the contemporaneous period	0
over the contemporaneous period (1)	19.25
Net Emissions Increase	38.67
PSD Threshold	40

The installation of the NGD paint booth was associated with the phase out of the 7.3L Paint Booth. The potential VOC emissions from the NGD paint booth were under estimated when this facility was initially permitted. The VOC emissions from the 7.3L paint booth should have been limited or the booth shut down prior to start up of the NGD paint booth. The 7.3 L paint booth was not taken total out of service until 1996, however it is apparent that the 7.3 L paint booth was all but phased out following startup of the NGD paint booth with 0.2 tons of VOC emissions for 1995-96.

COMPLIANCE

(a) All coatings comply with 3.5 lbs of VOC per gallon of coating less water.
(b) Compliance monitoring shall be required for this emission unit to ensure compliance with the PM and PM-10 emissions limitations
(c) A PMP is required for this paint booth
(d) The potential emissions after control were estimated to be 0.95 tons of PM-10 per year and 2.10 tons of PM per year, consequently this emission unit appears to be in compliance with the PM and PM-10 emissions limitations taken to render the PSD requirements not applicable.

Appendix A: Emissions Calculations
EU-E03A, EU-E03B, EU-E03C - Test Cells

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan shalabi
Date: 11/28/2011

Emission Unit ID	EU-E03A
Description	NGD Test Cell Area
Type of Fuel	Diesel Fuel
Maximum number to engines tested	630720
Number of test cells	8
Maximum fuel consumption per test cell (gal/hr)	NA
Maximum fuel consumption per test cycle (gal/cycle)	0.62
Heat Content (Btu/gal)	141000
Maximum annual fuel consumption (gal/yr)	391046
Heat Input per year (MMBtu/yr)	55137.54
Stack ID	SV-03A
Max. Flow Rate (acfm)	9000
Stack Temperature	103
Max. Flow Rate (dscfm)	8472
Date Installed	1995

Potential to Emit

Pollutant	PM-10	PM	PM2.5	SO2	NOx	CO	VOC
Units	lbs/MMBtu	lbs/MMBtu	lbs/MMBTu	lbs/MMBtu	lbs/MMBtu	lbs/MMBtu	lbs/MMBtu
Source of Emission Factor	AP-42 Sect 3.3	AP-42 Sect 3.3	AP-42 Sect 3.3	AP-42 Sect 3.3	AP-42 Sect 3.3	AP-42 Sect 3.3	AP-42 Sect 3.3
Emission Factor	0.31	0.31	0.31	0.29	4.41	0.95	0.36
EU-E03A (lbs/hr)	1.95	1.95	1.95	1.83	27.76	5.98	2.27
(tons/yr)	8.55	8.55	8.55	7.99	121.58	26.19	9.92

Allowable

Emission Unit	Regulation	Pollutant	Limit	Units	Limit	Units
EU-E03A, B, C	326 IAC 6.5-1-2(a)	PM	0.03	gr/dscf	NA	NA
EU-E03A (1)	326 IAC 2-2	NOx	1.88	lbs/mmBtu	51.80	ton/yr

(1) The NOx emissions limit is based on 1.88 lbs/mmBtu and 390,825 gallons of diesel fuel combusted per twelve month period.

Compliance

(1) The NGD engine test cell area (EU-E03A) has demonstrated compliance with the short term NOx emission limit based on stack testing conducted on 1/10/95.
(2) Based on AP-42 emissions factors for PM these units appear to be in compliance with 326 IAC 6-1-2(a).

Netting Analysis

	NOx
Limiting Potential to Emit of EU-E03A	51.8
Net Emissions Decrease over the contemporaneous period (1)	12.05
Net Emissions Increase over the contemporaneous period	0.00
Net Change	39.75
PSD Threshold	40.00

(1) Contemporaneous emissions decrease is from the boiler conversion in 1993.

Appendix A: Emissions Calculations
NGDI - Test Cell

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Plt ID: 097-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Potential to Emit
Heat Input Capacity
MM Btu/yr
42300.0

	Pollutant						
	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.31	0.31	0.31	0.29	4.41	0.36	0.08
Potential Emission in tons/yr	6.56	6.56	6.56	6.13	93.27	7.61	1.69

	Pollutant						
	Acetaldehyde	Benzene	Formaldehyde	Naphthalene	Toluene	Xylene	Propylene
Emission Factor in lb/hp-hr	7.67E-04	9.33E-04	1.18E-03	8.48E-05	4.09E-04	2.85E-04	2.58E-03
Potential Emission in tons/yr	0.02	0.02	0.02	0.00	0.01	0.01	0.05

Methodology
Maximum capacity = 42322.6 MMBtu per year = 300,000 gallons of diesel fuel at 141,000 BTU/gal heat content = 250,000 engines tested per year
Emission (tons/yr) = [Heat input rate (MMBtu/yr) x Emission Factor (lb/MMBtu)] / (2,000 lb/ton)

Limited Potential Emissions

Heat Input Capacity MM Btu/yr	Gallon equivalent Gallon/yr
29610.0	210000.0

	Pollutant						
	PM	PM10*	PM2..5	SO2	NOx* (1)	VOC	CO* (1)
Emission Factor in lb/MMBtu * lb/gallon	0.31	0.0476	0.0476	0.29	0.18	0.36	0.08
Potential Emission in tons/yr	4.59	5.00	5.00	4.29	18.90	5.33	8.40

	Pollutant						
	Acetaldehyde	Benzene	Formaldehyde	Naphthalene	Toluene	Xylene	Propylene
Emission Factor in lb/hp-hr	7.67E-04	9.33E-04	1.18E-03	8.48E-05	4.09E-04	2.85E-04	2.58E-03
Potential Emission in tons/yr	0.01	0.01	0.02	0.00	0.01	0.00	0.04

Methodology
Limited potential to emit is based on a limit of 210,000 gallons per year of diesel input at 141,000 fuel content = 29610 MMBtu per year
Maximum capacity = 42322.6 MMBtu per year = 300,000 gallons of diesel fuel at 141,000 BTU/gal heat content = 250,000 engines tested per year
Emission (tons/yr) = [Heat input rate (MMBtu/yr) x Emission Factor (lb/MMBtu)] / (2,000 lb/ton)

1 Navistar 1995 Engine Test Cells Emission Factor (lbs/gal Diesel fuel). 1995 Emission Testing on Exhaust Stack from six (6) Engine Test Cells.
2 All other emission factors not otherwise indicated are form: AP42 (Supplement B 10/96), Table 3.3-1 and 3.3-2

Allowable

Unit	Pollutant	Regulation	Limit	Units	Limit	Units
NGDI	PM	326 IAC 6.5-1-2	0.03	gr/dscf	NA	NA
NGDI	PM10	326 IAC 2-2	0.0476	lb/gal	5	tons/yr
NGDI	PM2.5	327 IAC 2-2	1.0476	lb/gal	6	tons/yr

Appendix A: Emissions Calculations
EU-F01 - Core Sand Mixing Platform

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F01
Description	Core Sand Mixing Platform
Max Throughput Sand (tons/hr)	30
Stack ID	SV-10
Max. Flow Rate (acfm)	4500
Stack Temperature	72
Max. Flow Rate (dscfm)	4483
Control Device	Baghouse
Control Efficiency	0.99
Date Installed	1962

Potential to Emit

Pollutant	PM-10 (1)	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Emission Factor	3.6	3.6	3.6	None	None	None	None	None
Source	AP-42	AP-42	AP-42					
Units	lb/ton sand	lb/ton sand	lb/ton sand	None	None	None	None	None
lbs/hr	108.00	108.00	108.00	None	None	None	None	None
tons/yr	473.04	473.04	473.04	0.00	0.00	0.00	0.00	0.00

(1) Note PM-10 and PM2.5 were assumed to be equivalent to PM.

Allowable Emissions

Pollutant	Regulation	Units	Limit	Equivalent pounds per hour emission rate	Equivalent tons per year emission rate
PM	326 IAC 6.5-1-2	gr/dscf	0.03	1.15	5.05

Limited Emissions

Pollutant	PM	PM-10	SO2	NOx	CO	VOC	Pb
Emissions (ton/yr)	5.05	5.05	0.00	0.00	0.00	0.00	0.00

(1) Note The PTE for PM and PM-10 was based on 0.03 gr/dscf and continuous hours of operation.

Compliance

(1) Compliance monitoring is not required since the emission unit has a control device and the allowable emissions are sufficiently low.
(2) This unit has not been previously stack tested

Appendix A: Emissions Calculations
EU-F02 - Cold Box Core Machines

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F02
Description	13 Cold Box Core Machines
Date Installed	1977 to 1995

	Throughput	%VOC	% Naphthalene	% Xylene	% Cumene	% Triethylamine
Material	(ton/yr)	By Wt.	By Wt.	By Wt.	By Wt.	By Wt.
Throughput Cores Sand	455520.00	0.00%	0.00%	0.00%	0.00%	0.00%
Throughput Isocure I	5022.28	25.00%	1.00%	0.00%	0.00%	0.00%
Throughput Isocure II	4109.10	25.00%	4.00%	9.00%	3.00%	0.00%
Throughput Isocure Catalyst 700	3868.05	100.00%	0.00%	0.00%	0.00%	100.00%

Stack ID	Unknown	Unknown	Unknown	SV-11	SV-12
Max. Flow Rate (acfm)	1193	1873	1196	1421	10090
Stack Temperature	71	78	85	78	83
Max. Flow Rate (dscfm)	1191	1845	1163	1400	9848
Control Device	None	None	None	None	None
Control Efficiency	0	0	0	0	0

Potential to Emit

	Throughput	VOC	Naphthalene	Xylene	Cumene	Triethylamine
Material	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Isocure I	5022.28	1255.57	50.22	0.00	0.00	0.00
Isocure II	4109.10	1027.27	164.36	369.82	123.27	0.00
Isocure Catalyst 700	3868.05	3868.05	0.00	0.00	0.00	3868.05
Total		6150.90	214.59	369.82	123.27	3868.05

Note that there is one small baghouse associated with this emission unit; however, it has been classified as insignificant.

Compliance

Since there are no applicable requirements, compliance monitoring will not be required.

Appendix A: Emissions Calculations
EU-F03 - Hot Box Core Machines
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F03	
Description	Hot Box Core Making	
Throughput Cores	15	tons/hr
Oven Heat Input Capacity	25.4	Numerous ovens all less than 10 MMBtu/hr
Fuel	Natural Gas	
Maximum Firing Rate	0.024	MMcf/hr
Date Installed	1965	

	Throughput	VOC	Formaldehyde	Phenol
Material	ton/yr	% by Wt.	% by Wt.	% by Wt.
Throughput Cores Sand	26280.00	0.00%	0.00%	0.00%
Throughput Resin	141.91	10.00%	12.00%	11.00%
Throughput Catalyst (Chem Rez Catalyst 57-947)	30.15	55.00%	0.00%	0.00%

Stack ID	SV-13a	SV-13b	SV-13c	SV-13d	SV-13e	SV-13f	SV-13g	SV-13h	SV-13i	SV-13j
Max. Flow Rate (acfm)	10587	8993	12214	14211	11422	10090	17381	10137	8807	11647
Stack Temperature	85	93	85	90	112	83	90	85	175	90
Max. Flow Rate (dscfm)	10296	8619	11878	13694	10583	9848	16749	9858	7351	11223
Control Device	None	None	None	None	None	None	None	None	None	None
Control Efficiency	0	0	0	0	0	0	0	0	0	0

Potential to Emit

	Throughput	% of VOC	VOC	%Formaldehyde	Formaldehyde	% Phenol	Phenol
Material	ton/yr	emitted (1)	ton/yr	emitted (1)	ton/yr	emitted (1)	ton/yr
Throughput Resin	141.91	0.9	12.77	0.9	15.33	0.9	14.05
Throughput Catalyst (Chem Rez Catalyst 57-947)	30.15	0.55	9.12	NA	0.00	NA	0.00
Total			21.89		15.33		14.05

Pollutant	PM-10	PM2.5	PM	SO2	NOx	CO
Source of Emission Factor	AIRS	Assume = PM10	AIRS	AIRS	AIRS	AP-42 Sect. 1.4
Unit	lbs/ton of cores	lbs/ton of cores	lbs/ton of cores	lbs/ton of cores	lbs/ton of cores	lb/MMcf
Emission Factor	2.22	2.22	2.71	0.32	0.50	21.00
Emissions (ton/yr)	145.85	145.85	178.05	21.02	32.85	2.23

(1) Form R reporting of Binder Chemical Used in Foundries; 1992 American Foundrymen's Society, Inc.

Allowable Emissions

Pollutant	Regulation	Limit	Units	Equivalent pounds per hour emission rate	Equivalent tons per year emission rate
PM	326 IAC 6.5-1-2	0.03	gr/dscf	28.31	124.00

Potential to Emit

Pollutant	PM-10(1)	PM	SO2	NOx	CO	VOC(2)	Formaldehyde	Phenol	Combined HAPs
Emissions (ton/yr)	145.85	124.00	21.02	32.85	2.23	29.38	15.33	14.05	29.38

(1) Based on emission factor since there is no applicable requirement limiting PM-10.
(2) Based on combined HAP emissions rather than VOC emission factor since the combined HAP emissions are greater than the VOC emissions using the emission factors and the HAPs are also VOC

Compliance

(1) Calculated average PM emission rate based on 1997 production data is 0.0002gr/dscf.
(2) Compliance monitoring is not required because actual emissions are sufficiently low.

Appendix A: Emissions Calculations
Core Line
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2001

Emission Unit	EU-28A	EU-28B	EU-28C	EU-28D
Description	(3) Cold Box Core Machines	Sand Rec. Bin	Sand Rec. Bin	Sand Rec. Bin
Stack ID:	SV-28A	SV-28B (vents inside)	SV-28C (vents inside)	SV-28D (vents inside)
Stack Flowrate:	28,000	3,900	3,900	3,900
Stack Gas Temp.:	Ambient	Ambient	Ambient	Ambient
Stack Flowrate:	28,000	3,900	3,900	3,900
Control Device:	Scrubber	Bin Vent Filter	Bin Vent Filter	Bin Vent Filter
Control Efficiency:	95%	80%	80%	80%
Capture Efficiency:	100%	100%	100%	100%

Maximum Operating Capacity		
Part 1 Resin:	37.18	lbs/hr-machine
Part II Resin:	30.42	lbs/hr-machine
Sand:	5,200	lbs/hr-machine
TEA Gas:	5	lbs/hr-machine

VOC and HAP Emissions

Material	Component	%VOC by Wt.	% HAP by Wt.	% Flash Off	Potential VOC lbs/hr	Potential VOC tons/yr	Potential VOC (Controlled) lbs/hr	Potential VOC (Controlled) tons/yr	Potential HAP lbs/hr	Potential HAP tons/yr	Potential HAP (Controlled) lbs/hr	Potential HAP (Controlled) tons/yr
Part I Resin	Phenol	3.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ester Solvents	20.00%	0.00%	3.25%	0.73	3.18	0.73	3.18	0.00	0.00	0.00	0.00
	Isophorone	4.00%	4.00%	3.25%	0.15	0.64	0.15	0.64	0.15	0.64	0.15	0.64
Part II Coreactant	Polymeric Dipenlmethane Diisocynate	49.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Methylene Phenylisocynate	37.00%	37.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TEA	Triethylamine	100.00%	100.00%	100.00%	15.00	65.70	0.75	3.29	15.00	65.70	0.75	3.29
					Total:	69.51	Total:	7.10	Total:	66.34	Total:	3.92

Example Calculations:
Uncontrolled pounds of component / hr-cold box machine x % weight VOC (or HAP) x %consituent evaporated x 3 cold box machines = pounds VOC (or HAP) /hr
Controlled (TEA) pounds of component / hr x (1 - 0.95) = pounds VOC (or HAP) /hr

Particulate Emissions

Pollutant	Emission Factor (gr/dscf)	Potential PM/ PM-10 lbs/hr	Potential PM/ PM-10 tons/yr	Air Flowrate Sand Bin (dscfm)	Controlled Potential Emissions lbs/hr	Controlled Potential Emissions tons/yr	PM Limit (GR/DSCF)	Individual Bin Limited PTE PM/PM-10 lbs/hr	Individual Bin Limited PTE PM/PM-10 tons/yr	Total for all 3 Bins Limited PTE PM/PM-10 lbs/hr	Total for all 3 Bins Limited PTE PM/PM-10 tons/yr
PM	0.03	1.00	4.39	3900	0.20	0.88	0.03	1.00	4.39	3.01	13.18
PM-10	0.03	1.00	4.39	3900	0.20	0.88	0.03	1.00	4.39	3.01	13.18
PM-2.5	0.03	1.00	4.39	3900	0.20	0.88	0.03	1.00	4.39	3.01	13.18

Example Calculations:
Uncontrolled (grains/ standard cubic foot x standard cubic foot/minute x 60 minutes/hour)/(7,000 grains/pounds) = pounds/hour
Controlled (grains/ standard cubic foot x standard cubic foot/minute x 60 minutes/hour)/(7,000 grains/pounds) x (1- control efficiency) = pounds/hour

Allowable Emissions

Pollutant	Regulation	Limit	Units	pounds per hour emission rate	Equivalent tons per year emission rate
PM	326 IAC 6.5-1-2	0.03	gr/dscf	1.00	4.39
VOC	326 IAC 8-1-6	95	% reduction	1.62	7.10
HAP	326 IAC 2-4.1	95	% reduction	0.90	3.92

Appendix A: Emissions Calculations
EU-F04 - Phase 1 Melting Process
Company Name: Navistar, inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F04			
Description	Scrap Preheater M-1, Electric Induction Furnaces #1,2,3 and Inoculation		Stack ID	SV-14
Maximum Melt rate of each induction Furnace	20	ton/hr	Max. Flow Rate (acfm)	103000
Charging system capacity	60	ton/hr	Stack Temperature	143
M1 Preheater Heat Input Capacity	22	MMBtu/hr	Max. Flow Rate (dscfm)	90531
M1 Preheater Fuel	Natural Gas		Control Device	Baghouse
Maximum Firing Rate	0.02	MMcf/hr	Control Efficiency	0.99
Date Furnaces Installed/Modified	1971			

Potential to Emit

Preheater

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	Stack Test	EPA Speciate
Emission Factor	7.6	7.6	1.9	0.6	100	85	0.02	1.83E-03
Units	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/ton	lbs/ton
Emissions (ton/yr)	0.70	0.70	0.17	0.06	9.18	7.80	5.26	0.48

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Cobalt
Source of Emission Factor	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	8.88E-04	1.82E-04	1.49E-02	3.22E-04	6.24E-05	2.88E-05	4.80E-06	1.44E-05
Emissions (ton/yr)	2.33E-01	4.78E-02	3.92E+00	8.46E-02	1.64E-02	7.57E-03	1.26E-03	3.78E-03

Induction Furnaces

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	SCC30400303	Assume = PM10	SCC30400303	None	None	None	None	EPA Speciate
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	None	lbs/ton metal
Emission Factor	0.86	0.86	0.9	None	None	None	None	0.00486
Emissions (ton/yr)	75.336	75.336	78.84	0	0	0	0	0.43

Inoculation

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	Assume =PM	Assume =PM10	SCC30400310	None	None	None	SCC30400310	EPA Doc. 68-D9-0168
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	lbs/ton metal	lbs/ton metal
Emission Factor	4	4	4	None	None	None	0.005	0.00012
Emissions (ton/yr)	350.4	350.4	350.4	0	0	0	0.44	0.01

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury
Source of Emission Factor	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	3.18E-04	8.00E-06	7.00E-05	6.20E-07	3.41E-05	3.00E-06	1.16E-06	4.00E-08	4.40E-05
Emissions (ton/yr)	2.79E-02	7.01E-04	6.13E-03	5.43E-05	2.99E-03	2.63E-04	1.02E-04	3.50E-06	3.85E-03

Total Emissions

Pollutant	PM-10	PM2.5	PM	SO2	NOx	CO	VOC	Pb
Emissions (ton/yr)	426.43	426.43	429.41	0.06	9.18	7.80	5.69	0.92

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury	Cobalt
Emissions (ton/yr)	2.61E-01	4.85E-02	3.92E+00	8.47E-02	1.94E-02	7.83E-03	1.36E-03	3.50E-06	3.85E-03	3.78E-03

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM	326 IAC 6.5-6-26	gr/dscf	0.019	ton/yr	45.7

Equivalent pounds per hour emission rate = 14.74
Equivalent tons per year emission rate at 8760 hr/yr = 64.58

Equivalent hours of operation to comply with 45.7 tons of PM at an emission rate of 0.019 gr/dscf:
(45.7 ton/yr x 2000 lbs/ton)/((0.019 gr/dscf x 90531 dscf/min x 60 min/hr)/(7000gr/lb)) = 6199 hours of operation/year

Equivalent control efficiency to comply with the PM emission rate of 0.019 gr/dscf:
(1 - (64.58 ton/yr / 644.03 ton/yr)) = 84.96%

Compliance

(1) Based on a stack test performed in 9/12/90 this unit demonstrated compliance with the SIP limit of 0.019 gr/dscf, with an average emission rate for three run of 0.0037 gr/dscf
(2) Assuming an emission rate of 0.0036 gr/dscf this emission unit would be in compliance with the long term emission limit of 45.7 ton/yr at 8760 hours of operation.
(3) Since this emission unit has a control device and has sufficiently high allowable emissions, compliance monitoring is required.

Appendix A: Emissions Calculations
EU-F05 - Phase 2 Melting Process

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan shalabi
Date: 11/28/2011

Emission Unit ID	EU-F05			
Description	Scrap Preheater M-3, Electric Induction Furnaces #4,5,6 and Inoculation		Stack ID	SV-14
Maximum Melt rate of each induction Furnace	20	ton/hr	Max. Flow Rate (acfm)	103218
Charging system capacity	60	ton/hr	Stack Temperature	137
M1 Preheater Heat Input Capacity	22	MMBtu/hr	Max. Flow Rate (dscfm)	91634
M1 Preheater Fuel	Natural Gas		Control Device	Baghouse
Maximum Firing Rate	0.02	MMcf/hr	Control Efficiency	0.99
Date Furnaces Installed/Modified	1971			

Potential to Emit

Preheater

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	AP-42 Sect 1-4	Stack Test	EPA Speciate
Emission Factor	7.6	7.6	1.9	0.6	100	85	0.02	0.00183
Units	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/MMcf	lbs/ton	lbs/ton
Emissions (ton/yr)	0.70	0.70	0.17	0.06	9.18	7.80	5.26	0.48

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Cobalt
Source of Emission Factor	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	8.88E-04	1.82E-04	1.49E-02	3.22E-04	6.24E-05	2.88E-05	4.80E-06	1.44E-05
Emissions (ton/yr)	2.33E-01	4.78E-02	3.92E+00	8.46E-02	1.64E-02	7.57E-03	1.26E-03	3.78E-03

Induction Furnaces

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	SCC30400303	Assume = PM10	SCC30400303	None	None	None	None	EPA Speciate
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	None	lbs/ton metal
Emission Factor	0.86	0.86	0.9	None	None	None	None	0.00486
Emissions (ton/yr)	75.336	75.336	78.84	0	0	0	0	0.43

Inoculation

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	Assume =PM	Assume =PM10	SCC30400310	None	None	None	SCC30400310	EPA Doc. 68-D9-0168
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	lbs/ton metal	lbs/ton metal
Emission Factor	4	4	4	None	None	None	0.005	0.00012
Emissions (ton/yr)	350.4	350.4	350.4	0	0	0	0.44	0.01

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury
Source of Emission Factor	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168	EPA Doc. 68-D9-0168
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions (ton/yr)	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

Total Emissions

Pollutant	PM-10 / PM2.5	PM	SO2	NOx	CO	VOC	Pb
Emissions (ton/yr)	426.43	429.41	0.06	9.18	7.80	5.69	0.92

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury	Cobalt
Emissions (ton/yr)	2.61E-01	4.85E-02	3.92E+00	8.47E-02	1.94E-02	7.83E-03	1.36E-03	3.50E-06	3.85E-03	3.78E-03

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM	326 IAC 6.5-6-26	gr/dscf	0.02	ton/yr	53.5

Equivalent pounds per hour emission rate = 15.71
Equivalent tons per year emission rate at 8760 hr/yr = 68.80

Equivalent hours of operation to comply with 53.5 tons of PM at an emission rate of 0.02 gr/dscf:
(53.5 ton/yr x 2000 lbs/ton)/((0.02 gr/dscf x 91,634 dscf/min x 60 min/hr)/(7000gr/lb)) = 6812 hours of operation/year

Equivalent control efficiency to comply with the PM emission rate of 0.02 gr/dscf:
(1 - (68.80 ton/yr / 645.14 ton/yr)) = 83.98%

Compliance

(1) Based on a stack test performed in 9/13/90, this unit demonstrated compliance with the SIP limit of 0.02 gr/dscf, with an average emission rate for three run of 0.0024 gr/dscf
(2) Assuming an emission rate of 0.0024 gr/dscf this emission unit would be in compliance with the long term emission limit of 53.5 ton/yr at 8760 hours of operation.
(3) Since this emission unit has a control device and sufficiently high allowable emissions, compliance monitoring is require

Appendix A: Emissions Calculations
EU-F19 - Phase 3 Melting Process
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2001

Emission Unit ID	EU-F19	
Description	(1) Preheater and (2) Induction Furnaces	
Maximum Capacity		
Induction Furnaces	25	Ton of Metal Melted/hr (total combined)
Preheater	30	MMBtu/hr (Natural Gas Fired)
Stack ID	SV-33	
Max. Flow Rate (acfm)	90000	
Stack Temperature	77	
Max. Flow Rate (dscfm)	90000	
Control Device	EM-3 Baghouse	
Control Efficiency	0.99	
Date Installed/Modified	1998	

Potential to Emit

Preheater

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	VOC	CO	Pb
Emission Factor	1.9	1.9	7.6	0.6	100	0.02	84	0.00185
Source of Emission Factor	(3)	assume=PM10	(3)	(3)	(3)	(5)	(3)	(6)
Units	lbs/mmcf	lbs/mmcf	lbs/mmcf	lbs/mmcf	lbs/mmcf	lbs/ton	lbs/mmcf	lbs/ton
Emissions (ton/yr)	0.25	0.25	1.00	0.08	13.14	2.19	11.04	0.20

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Cobalt
Source of Emission Factor	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	8.88E-04	1.82E-04	1.49E-02	3.22E-04	6.24E-05	2.88E-05	4.80E-06	1.44E-05
Emissions (ton/yr)	9.72E-02	1.99E-02	1.63E+00	3.53E-02	6.83E-03	3.15E-03	5.26E-04	1.58E-03

Induction Furnaces

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	(4)	Assume=PM10	(4)	None	None	None	None	(6)
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	None	lbs/ton metal
Emission Factor	0.86	0.86	0.9	None	None	None	None	0.00486
Emissions (ton/yr)	9.42E+01	9.42E+01	9.86E+01	0	0	0	0	5.32E-01

Inoculation

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Source of Emission Factor	Assume =PM	Assume =PM10	(4)	None	None	None	(4)	(8)
Unit	lbs/ton metal	lbs/ton metal	lbs/ton metal	None	None	None	lbs/ton metal	lbs/ton metal
Emission Factor	4	4	4	None	None	None	0.005	0.00012
Emissions (ton/yr)	4.38E+02	4.38E+02	4.38E+02	0	0	0	5.48E-01	1.31E-02

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury
Source of Emission Factor	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Unit	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged	lbs/ton Charged
Emission Factor	3.18E-04	8.00E-06	7.00E-05	6.20E-07	3.41E-05	3.00E-06	1.16E-06	4.00E-08	4.40E-05
Emissions (ton/yr)	3.48E-02	8.76E-04	7.67E-03	6.79E-05	3.73E-03	3.29E-04	1.27E-04	4.38E-06	4.82E-03

Total Emissions

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Emissions (ton/yr)	532.42	532.42	537.55	0.08	13.14	2.19	11.59	0.75

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cadmium	Selenium	Beryllium	Mercury	Cobalt
Emissions (ton/yr)	1.32E-01	2.08E-02	1.64E+00	3.53E-02	1.06E-02	3.48E-03	6.53E-04	4.38E-06	4.82E-03	1.58E-03

(3) AP-42 emission factor for natural gas combustion
(4) EPA 450/4-90-003(AIRS) SCC30400310
(5) Obtained from stack test data for a similar facility at Navistars Waukesha, Winsonson Foundry
(6) EPA "SPECIATE" Database (Uncontrolled)
(7) EPA 450/4-90-003(AIRS)
(8) Emission Factors For Iron Foundries - Criteria and Toxic Pollutants EPA No. 68-D9-0168 (Uncontrolled).

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM (EU-F15 and EU-F19)	326 IAC 6.5-6-26	gr/dscf	0.02	ton/yr	35.4
Induction Furnace Throughput	326 IAC 2-2	ton/yr	114,000	NA	NA
PM (EU-F15 and EU-F19)	326 IAC 2-2	lb/ton of metal	0.43	ton/yr	25
PM-10 (EU-F15 and EU-F19)	326 IAC 2-2	lb/ton of metal	0.25	ton/yr	15
PM (EU-F19 only)	326 IAC 2-2	lb/ton of metal	0.42	ton/yr	24
PM-10 (EU-F19 only)	326 IAC 2-2	lb/ton of metal	0.24	ton/yr	14
Pb (EU-F19 only)	326 IAC 2-2	lb/ton of metal	0.01	ton/yr	0.59

Updated Induction Furnace PSD Minor Limits:
Limited PM Emissions: 24.00 ton/yr
24 (ton PM/yr) * 2000 (lb PM/ton PM) / 114,000 (ton metal/yr) = 0.42 lb/ton of metal

Limited PM10 Emissions: 14.00 ton/yr
14 (ton PM10/yr) * 2000 (lb PM10/ton PM10) / 114,000 (ton metal/yr) = 0.24 lb/ton of metal

Limited Lead Emissions: 0.59 ton/yr
0.59 (ton lead/yr) * 2000 (lb lead/ton lead) / 114,000 (ton metal/yr) = 0.01 lb/ton of metal

Compliance

(1) Pursuant to CP-98-0039-01, IDEM and OES are requiring ICC to conduct a stack test for PM to document compliance with 326 IAC 6-1-12.
(2) Pursuant to CP-98-0039-01, IDEM and OES are requiring ICC to conduct stack tests for PM, PM-10 and Pb to document compliance with 326 IAC 2-2.
(3) Since this emission unit has a control device and allowable emissions are sufficiently high, compliance monitoring is require

Appendix A: Emissions Calculations
EU-F06 - M3 Molding Line

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F06
Description	M-3 Line; Casting Punchout, Casting Shakeout, Storage Hopper, Sand Muller
Maximum Throughput of Castings (ton/hr)	60
Stack ID	SV-16a & b
Max. Flow Rate (acfm)	162968
Stack Temperature	72
Max. Flow Rate (dscfm)	162355
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1976

Potential to Emit
Casting Shakeout

Pollutant	PM-10	PM2.5	PM	SO2	NOx	CO	VOC	Pb
Emission Factor	2.24	2.24	3.2	None	None	None	1.2	0.01232
Source of Emission Factor	SCC30400331	Assume=PM10	SCC30400331	None	None	None	SCC30400331	EPA Speciate
Units	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	None	None	None	lbs/ton of metal	lbs/ton of meta
Emissions (ton/yr)	588.672	588.672	840.96	0	0	0	315.36	3.237696

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cobalt	Selenium
Source of Emission Factor	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate	EPA Speciate
Emission Factor	5.92E-03	1.22E-03	9.92E-02	2.14E-03	4.20E-04	1.00E-04	3.00E-05
Units	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal
Emissions (ton/yr)	1.56	0.32	26.07	0.56	0.11	0.03	0.01

Pollutant	Cadmium	Phenol	Naphthalene	Dibenzofuran	Aniline
Source of Emission Factor	EPA Speciate	EPA 600/2-80-021	EPA 600/2-80-021	EPA 600/2-80-021	EPA 600/2-80-021
Emission Factor	1.90E-04	4.00E-03	1.05E-02	7.00E-05	7.60E-03
Units	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal
Emissions (ton/yr)	0.05	1.05	2.76	0.02	2.00

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit	Units
PM	326 IAC 6.5-6-26	gr/dscf	0.015	ton/yr	72.4	tons metal melted/yea

Equivalent pounds per hour emission rate = 20.87
Equivalent tons per year emission rate at 8760 hr/y 91.43

Equivalent hours of operation to comply with 72.4 tons of PM at an emission rate of 0.015 gr/dscf:
(72.4 ton/yr x 2000 lbs/ton)/((0.015 gr/dscf x 162,355 dscf/min x 60 min/hr)/(7000gr/lb)) = 6936 hours of operation/year

Equivalent control efficiency to comply with the PM emission rate of 0.02 gr/dscf:
(1 - (91.43 ton/yr / 840.96 ton/yr)) = 89.13%

Compliance

(1) Based on a stack test performed in 3/26/96, this unit demonstrated compliance with the SIP limit of 0.015 gr/dscf, with an average emission rate for three run of 0.0041 gr/dscf
(2) Assuming an emission rate of 0.0041 gr/dscf, this emission unit would be in compliance with the long term emission limit of 72.4 ton/yr at 8760 hours of operation.
(3) Since this emission unit has a control device and has sufficiently high allowable emissions, compliance monitoring is required

Appendix A: Emissions Calculations
EU-F07 - M3 Casting Cooling

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F07	
Description	Casting Cooling M3 (Fume Tunnel)	
Maximum Throughput of Castings	60	tons/hr
Stack ID	SV-17	
Max. Flow Rate (acfm)	89411	Total from 10 stacks
Stack Temperature	112	Average Stack Temp
Max. Flow Rate (dscfm)	89411	Total from 10 stacks
Control Device	None	
Control Efficiency	0	
Date Installed/Modified	1974	

Potential to Emit
Casting Cooling

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Emission Factor	1.4	1.4	1.4	0.0292	0.06376	3.84	0.112	1.76E-05
Source of Emission Factor	AP-42	Assume-PM10	AP-42	(3)	(3)	(3)	(2)	(4)
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	367.92	367.92	367.92	7.67	16.76	1009.15	29.43	4.63E-03

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Beryllium	Selenium
Source of Emission Factor	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Emission Factor	1.28E-06	1.06E-04	1.06E-04	4.00E-05	1.60E-07	6.40E-08	1.60E-07
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	3.36E-04	2.79E-02	2.79E-02	1.05E-02	4.20E-05	1.68E-05	4.20E-05

Pollutant	Cadmium	Mercury	Formaldehyde	Acrolein	Benzene	Toluene	Xylene
Source of Emission Factor	(4)	(4)	(3)	(3)	(3)	(3)	(3)
Emission Factor	1.28E-06	1.76E-05	7.68E-04	7.68E-04	6.98E-02	6.91E-03	1.54E-03
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	3.36E-04	4.63E-03	2.02E-01	2.02E-01	1.83E+01	1.82E+00	4.05E-01

Pollutant	Naphthalene	Phenol
Source of Emission Factor	(3)	(3)
Emission Factor	1.54E-03	1.46E-02
Units	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	4.05E-01	3.84E+00

(2) Note VOC emission factor (uncontrolled) is from "FIRE" and emissions are assumed to be split between pouring and cooling (20% / 80%).
(3) Note emissions factors (uncontrolled) from American Foundrymen's Society Transaction, Volume 85, 1977.
For calculation purposes emissions were assumed to be split between pouring and cooling (20%/80%)
(4) Note emission factors are from EPA Document "EPA-600/2-90-044" and assume emissions split between pouring and cooling (20% / 80%)

Allowable Emissions

Pollutant	Regulation	Units	Limit
PM	326 IAC 6.5-1-2(a)	gr/dscf	0.03

Compliance

(1) The expected grain loading of the exhaust from this unit (based on AP-42 emission factors and the following equation) is greater than what is allowed by 326 IAC 6.5-1-2; therefore testing is required.

(1.4 lbs/ton x 60 tons/hr x 7000 gr/lb)/(89,411 dscf/min x 60 min/hr) = 0.11 gr/dscf

Appendix A: Emissions Calculations
EU-F08 - M1 Mold Pouring
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan shalabi
Date: 11/28/2011

Emission Unit ID	EU-F08	
Description	Mold Pouring M1	
Maximum Tons of Metal Poured	30	
Stack ID	SV-18	
Max. Flow Rate (acfm)	80595	Total for 3 stacks
Stack Temperature	107	Average Temp
Max. Flow Rate (dscfm)	75373	Total for 3 stacks
Control Device	None	
Control Efficiency	0	
Date Installed/Modified	1957	

Potential to Emit
Casting Pouring

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Emission Factor	4.2	4.2	4.2	0.0073	0.01594	0.96	0.028	4.40E-06
Source of Emission Factor	AP-42	Assume=PM10	AP-42	(3)	(3)	(3)	(2)	(4)
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	551.88	551.88	551.88	0.96	2.09	126.14	3.68	5.78E-04

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Beryllium	Selenium
Source of Emission Factor	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Emission Factor	3.20E-07	2.65E-05	2.64E-05	1.00E-05	4.00E-08	1.60E-08	4.00E-08
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	4.20E-05	3.48E-03	3.47E-03	1.31E-03	5.26E-06	2.10E-06	5.26E-06

Pollutant	Cadmium	Mercury	Formaldehyde	Acrolein	Benzene	Toluene	Xylene
Source of Emission Factor	(4)	(4)	(3)	(3)	(3)	(3)	(3)
Emission Factor	3.20E-07	4.40E-06	1.92E-04	1.92E-04	1.75E-02	1.73E-03	3.84E-04
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	4.20E-05	5.78E-04	2.52E-02	2.52E-02	2.30E+00	2.27E-01	5.05E-02

Pollutant	Naphthalene	Phenol
Source of Emission Factor	(3)	(3)
Emission Factor	3.84E-04	3.64E-03
Units	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	5.05E-02	4.78E-01

(2) Note VOC emission factor (uncontrolled) is from "FIRE" and emissions are assumed to be split between pouring and cooling (20% / 80%).
(3) Note emission factors (uncontrolled) from American Foundrymen's Society Transaction, Volume 85, 1977.
For calculation purposes emissions were assumed to be split between pouring and cooling (20%/80%)
(4) Note emission factors are from EPA Document "EPA-600/2-90-044 and assume emissions split between pouring and cooling (20% / 80%)

Allowable Emissions

Pollutant	Regulation	Units	Limit
PM	326 IAC 6.5-1-2(a	gr/dscf	0.03

Compliance

(1) The expected grain loading of the exhaust from this unit (based on AP-42 emission factors and the following equation) is greater than what is allowed by 326 IAC 6-1-2; therefore testing is required.

(4.2 lbs/ton x 30 tons/hr x 7000 gr/lb)/(75,373 dscf/min x 60 min/hr) = 0.20 gr/dscf

Appendix A: Emissions Calculations
EU-F09 - M1 Casting Cooling

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F09	
Description	Casting Cooling M1 (Fume Tunnel)	
Maximum Throughput of Castings	30	tons/hr
Stack ID	SV-19	
Max. Flow Rate (acfm)	118368	Total from 6 stacks
Stack Temperature	97	Average Stack Temp
Max. Flow Rate (dscfm)	111703	Total from 6 stacks
Control Device	None	
Control Efficiency	0	
Date Installed/Modified	1957	

Potential to Emit
Casting Cooling

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb
Emission Factor	1.4	1.4	1.4	0.0292	0.06376	3.84	0.112	1.76E-05
Source of Emission Factor	AP-42	Assume=PM10	AP-42	(3)	(3)	(3)	(2)	(4)
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	183.96	183.96	183.96	3.84	8.38	504.58	14.72	2.31E-03

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Beryllium	Selenium
Source of Emission Factor	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Emission Factor	1.28E-06	1.06E-04	1.06E-04	4.00E-05	1.60E-07	6.40E-08	1.60E-07
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	1.68E-04	1.39E-02	1.39E-02	5.26E-03	2.10E-05	8.41E-06	2.10E-05

Pollutant	Cadmium	Mercury	Formaldehyde	Acrolein	Benzene	Toluene	Xylene
Source of Emission Factor	(4)	(4)	(3)	(3)	(3)	(3)	(3)
Emission Factor	1.28E-06	1.76E-05	7.68E-04	7.68E-04	6.98E-02	6.91E-03	1.54E-03
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	1.68E-04	2.31E-03	1.01E-01	1.01E-01	9.17E+00	9.08E-01	2.02E-01

Pollutant	Naphthalene	Phenol
Source of Emission Factor	(3)	(3)
Emission Factor	1.54E-03	1.46E-02
Units	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	2.02E-01	1.92E+00

(2) Note VOC emission factor (uncontrolled) is from "FIRE" and emissions are assumed to be split between pouring and cooling (20% / 80%).
(3) Note emissions factors (uncontrolled) from American Foundrymen's Society Transaction, Volume 85, 1977.
For calculation purposes emissions were assumed to be split between pouring and cooling (20%/80%)
(4) Note emission factors are from EPA Document "EPA-600/2-90-044" and assume emissions split between pouring and cooling (20% / 80%)

Allowable Emissions

Pollutant	Regulation	Limit	Units
PM	326 IAC 6.5-1-2(a)	0.03	gr/dscf

Compliance

(1) The expected grain loading of the exhaust from this unit (based on AP-42 emission factors and the following equation) is greater than what is allowed by 326 IAC 6-1-2; therefore testing is required.

(1.4 lbs/ton x 60 tons/hr x 7000 gr/lb)/(89,411 dscf/min x 60 min/hr) = 0.04 gr/dscf

Appendix A: Emissions Calculations
EU-F10 - Molding Operation

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F10
Description	Sand Coolers M1 &M3, Casting Precooler, Storage Hopper M1, Sand Muller 1
Maximum Throughput of Sand	150
Stack ID	SV-20a, b & c
Max. Flow Rate (acfm)	124455
Stack Temperature	94
Max. Flow Rate (dscfm)	119146
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1976

Potential to Emit

Sand Handling/Grinding

Pollutant	PM-10	PM-2.5	PM	SO2	NOx	CO	VOC	Pb (1)
Emission Factor	0.54	0.54	3.6	None	None	None	None	0.01386
Source of Emission Factor	SCC 30400350	Assume=PM10	SCC 30400350	None	None	None	None	EPA Speciate
Units	lbs/ton sand	lbs/ton sand	lbs/ton sand	None	None	None	None	lbs/ton sand
Emissions (ton/yr)	354.78	354.78	2365.2	0	0	0	0	9.10602

(1) Note Pb emission factor is based on .385% of total PM emissions uncontrolle

Allowable Emissions

Pollutant	Regulation	Units	Limit	Unit	Limit
PM	326 IAC 6.5-6-26	gr/dscf	0.02	tons/yr	55.1

Equivalent pounds per hour emission rate = 20.43
Equivalent tons per year emission rate at 8760 hr/yr = 89.46

Equivalent hours of operation to comply with 55.1 tons of PM at an emission rate of 0.02 gr/dscf:
(55.1 tons/yr x 2000 lbs/ton)/((0.02 gr/dscf x 119146 dscf/min x 60 min/hr)/(7000 gr/lb)) = 5395

Equivalent hours of operation to comply with 55.1 tons of PM at an emission rate of 0.0129 gr/dscf (based on stack test results):
(55.1 tons/yr x 2000 lbs/ton)/((0.0129 gr/dscf x 119146 dscf/min x 60 min/hr)/(7000 gr/lb)) = 8365

Compliance

(1) Based on a stack test performed in 11/30/88, this unit appears to be able to comply with the SIP limit of 0.02 gr/dscf, with an average emission rate of 0.0129 gr/dscf
(2) Assuming an emission rate of 0.0129 gr/dscf, this emission unit would not be in compliance with the long term emission limit of 55.1 ton/yr at 8760 hours of operation.
The tons per year emissions at 0.0129 gr/dscf and 8760 hours per year would be 58 tons of PM, however this emissions unit typically operates only 5664 hr/yr.
(3) Since this emission unit has a control device and allowable emissions are sufficiently high, compliance monitoring is require

Appendix A: Emissions Calculations

EU-F11 - Molding Operation

Company Name: **Navistar, Inc**

Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**

Permit Number: **097-30905-00039**

Reviewer: **Ghassan shalabi**

Date: **11/28/2011**

Emission Unit ID	EU-F11
Description	Casting Punchout, Shakers, Casting Shakeout, Vibrating Feeders, Lump Breakers, Cooling Room
Maximum Throughput Metal Poured	30
Stack ID	SV-21a, b, c & d
Max. Flow Rate (acfm)	199786
Stack Temperature	92.4
Max. Flow Rate (dscfm)	191680
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1977

Potential to Emit

Shakeout

Pollutant	PM-10	PM-2.5	PM	SO2	NOx(2)	CO	VOC	Pb (1)
Emission Factor	2.24	1.34	3.2	None	None	None	1.2	0.01232
Source of Emission Factor	(1)	(1)	(1)	None	None	None	(1)	(2)
Units	lbs/ton melt	lbs/ton melt	lbs/ton melt	None	None	None	None	lbs/ton melt
Emissions (ton/yr)	294.336	176.076	420.48	0	0	0	157.68	1.618848

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Cobalt	Selenium
Source of Emission Factor	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Emission Factor	5.92E-03	1.22E-03	9.92E-02	2.14E-03	4.20E-04	1.00E-04	3.00E-05
Units	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal
Emissions (ton/yr)	0.78	0.16	13.03	0.28	0.06	0.01	0.00

Pollutant	Cadmium	Phenol	Naphthalene	Dibenzofuran	Aniline
Source of Emission Factor	(2)	(3)	(3)	(3)	(3)
Emission Factor	1.90E-04	4.00E-03	1.05E-02	7.00E-05	7.60E-03
Units	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal	lbs/ton of metal
Emissions (ton/yr)	0.02	0.53	1.38	0.01	1.00

(1) Emission Factors (uncontrolled) from EPA 450/5-90-003(AIRS), SCC 30400311
(2) EPA "SPECIATE" Database.
(3) Emission Factors From "Environmental Assessment of Iron Casting", EPA 600/2-80-021, January 1980.

Allowable Emissions

Pollutant	Regulation	Units	Limit	Unit	Limit
PM	326 IAC 6.5-6-26	gr/dscf	0.02	tons/yr	99.6

Equivalent pounds per hour emission rate = 32.86
Equivalent tons per year emission rate at 8760 hr/yr 143.92

Equivalent hours of operation to comply with 99.6 tons of PM at an emission rate of 0.02 gr/dscf:
(99.6 tons/yr x 2000 lbs/ton)/((0.02 gr/dscf x 191680 dscf/min x 60 min/hr)/(7000 gr/lb)) = 6062 hr/yr

Equivalent control efficiency to comply with the PM emission rate of 0.02 gr/dscf:
(1 - (143.92 ton/yr / 420.48 ton/yr)) = 65.77%

Compliance

(1) Based on a stack test performed in 2/8/88, this unit appears to be able to comply with the SIP limit of 0.02 gr/dscf, with an average emission rate of 0.0076 gr/dscf
(2) Assuming an emission rate of 0.0076 gr/dscf this emission unit would be in compliance with the long term emission limit of 99.6 ton/yr at 8760 hours of operation.
The tons per year emissions at 0.0076 gr/dscf and 8760 hours per year would be 55 tons of PM.
(3) Since this emission unit has a control device and allowable emissions are sufficiently high, compliance monitoring is require

Appendix A: Emissions Calculations
EU-F17 - M3 Mold Pouring Operation

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F17	
Description	Mold Pouring M3	
Maximum Tons of Metal Poured	60	
Stack ID	SV-27	
Max. Flow Rate (acfm)	77814	Total for 4 stacks
Stack Temperature	110	Average Temp
Max. Flow Rate (dscfm)	71605	Total for 4 stacks
Control Device	None	
Control Efficiency	0	
Date Installed/Modified	1974	

Potential to Emit
Casting Pouring

Pollutant	PM-10/PM2.5	PM	SO2	NOx(2)	CO	VOC	Pb
Emission Factor	4.2	4.2	0.0073	0.01594	0.96	0.028	4.40E-06
Source of Emission Factor	AP-42	AP-42	(3)	(3)	(3)	(2)	(4)
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	1103.76	1103.76	1.92	4.19	252.29	7.36	1.16E-03

Pollutant	Antimony	Chromium	Manganese	Nickel	Arsenic	Beryllium	Selenium
Source of Emission Factor	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Emission Factor	3.20E-07	2.65E-05	2.64E-05	1.00E-05	4.00E-08	1.60E-08	4.00E-08
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	8.41E-05	6.96E-03	6.94E-03	2.63E-03	1.05E-05	4.20E-06	1.05E-05

Pollutant	Cadmium	Mercury	Formaldehyde	Acrolein	Benzene	Toluene	Xylene
Source of Emission Factor	(4)	(4)	(3)	(3)	(3)	(3)	(3)
Emission Factor	3.20E-07	4.40E-06	1.92E-04	1.92E-04	1.75E-02	1.73E-03	3.84E-04
Units	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	8.41E-05	1.16E-03	5.05E-02	5.05E-02	4.60E+00	4.55E-01	1.01E-01

Pollutant	Naphthalene	Phenol
Source of Emission Factor	(3)	(3)
Emission Factor	3.84E-04	3.64E-03
Units	lbs/ton casting	lbs/ton casting
Emissions (ton/yr)	1.01E-01	9.57E-01

(2) Note VOC emission factor (uncontrolled) is from "FIRE" and emissions are assumed to be split between pouring and cooling (20% / 80%).
(3) Note emission factors (uncontrolled) from American Foundrymen's Society Transaction, Volume 85, 1977.
For calculation purposes emissions were assumed to be split between pouring and cooling (20%/80%)
(4) Note emission factors are from EPA Document "EPA-600/2-90-044" and assume emissions split between pouring and cooling (20% / 80%)

Allowable Emissions

Pollutant	Regulation	Units	Limit
PM	326 IAC 6.5-1-2(a	gr/dscf	0.03

(1) This emission unit appear to be in compliance with 0.03 gr/dscf assuming the emission factor of 0.297 lbs/ton is accurate.

Compliance

(1) The expected grain loading of the exhaust from this unit (based on AP-42 emission factors and the following equation) is greater than what is allowed by 326 IAC 6-1-2; therefore testing is required.

(4.2 lbs/ton x 60 tons/hr x 7000 gr/lb)/(71605 dscf/min x 60 min/hr) = 0.411 gr/dscf

Appendix A: Emissions Calculations
EU-F18 - Casting Line

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Potential to Emit

Maximum Capacity of iron poured ton per year: 192720.0

	Pouring1	Cooling 1	Pouring 1	Cooling 1	pouring & cooling 2	pouring & cooling 2	pouring & cooling 2	pouring & cooling 2
Emission Factor lb/ton of metal charged	PM 4.2000	PM 1.4000	PM10/PM2.5 4.2000	PM10/PM2.5 1.4000	Benzene 0.0371	Toluene 0.0200	Acetaldehyde 0.0035	o-cresol 0.0009
Potential Emission in tons/yr	404.71	134.90	404.71	134.90	3.5750	1.9272	0.3373	0.0867
	Total PM =	539.62	Total PM-10 =	539.62				

	pouring & cooling 2	pouring & cooling 2	pouring & cooling 2	pouring & cooling 2	pouring & cooling 2			
Emission Factor lb/ton of metal charged	Formaldehyde 0.0019	Naphthalene 0.0026	Phenol 0.0058	Xylene 0.0120	Total HAP	SO2 0.02	NOx 0.01	VOC 0.14
Potential Emission in tons/yr	0.1831	0.2505	0.5589	1.1563	8.0750	1.93	0.96	13.49

Methodology
Emission (tons/yr) = Throughput (ton/yr) x Emission Factor (lb/ton) X 8760hr/yr X ton/2,000 lb

Allowable Emissions

Pollutant	Regulation	Units	Limit
Throughput of iron	326 IAC 2-2	ton/yr	170,000
PM	326 IAC 6.5-1-2(a	gr/dscf	0.03
PM10/PM2.5	326 IAC 2-2	lb/ton	0.1176

Appendix A: Emissions Calculations
EU-F12 - Casting Cleaning Operation

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 079-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F12
Description	V8 Shot Blast Machine, V8 Air Blast Machine
Maximum Throughput Blocks per hour	275
Maximum Weigh of Engine Block (lbs)	485
Stack ID	SV-22
Max. Flow Rate (acfm)	18451
Stack Temperature	95.2
Max. Flow Rate (dscfm)	17613
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1989

Potential to Emit
Cleaning

Pollutant	PM/PM-10/PM2.5
Source of Emission Factor	Stack Test
Emission Factor	0.46
Units	gr/dscf
Emissions (ton/yr)	304.17

(1) Note the potential PM emissions are based on stack test data for this emission unit and have been adjusted to represent the uncontrolled emission rate by dividing the controlled emission rate by 1-99%.
(2) Note the potential PM-10 emissions were assumed to equal the total uncontrolled PM emission rate

Allowable Emissions

Pollutant	Regulation	Units	Limit	Equivalent lbs/hr	Equivalent ton/yr
PM	326 IAC 6.5-1-2(a)	gr/dscf	0.03	4.53	19.84
PM	326 IAC 2-2	lb/hr	0.7	NA	3.066
PM-10/PM2.5	326 IAC 2-2	lb/hr	0.7	NA	3.066

PSD Minor PM Limit:
3.04 tons PM/yr (controlled) / 8760 (hr/yr) * 2000 (lb/ton) 0.7 lb/hr

PSD Minor PM10 Limit:
3.04 tons PM/yr (controlled) / 8760 (hr/yr) * 2000 (lb/ton) 0.7 lb/hr

(1) Note that since emission units EU-F12 and EU-F14 were both installed in 1989 OES is treating these units as one project with respect to PSD and limiting the each emission units PTE to less than 12.5 tons of PM and 7.5 tons of PM-10 each such that the PSD regulation does not apply

Compliance

(1) Based on a PM stack test performed in 8/18/93, this unit appears to be able to comply with the 326 IAC 6-1-2 and 326 IAC 2-2 limits, with an average emission rate of 0.0046 gr/dscf.
(2) Based on process information included in the application, this emission unit can comply with the throughput limits established to avoid PSD applicability.
(3) Since this emission unit is required to take a limit to avoid an applicable requirement, compliance monitoring is requirec

Appendix A: Emissions Calculations
EU-F13 - Casting Cleaning Operation
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F13
Description	I-Block Grinder, V-Block Grinder
Maximum Throughput Blocks per hour	275
Maximum Weigh of Engine Block (lbs)	485
Stack ID	SV-23a, b & c
Max. Flow Rate (acfm)	133070
Stack Temperature	80
Max. Flow Rate (dscfm)	130653
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1978

Potential to Emit
Cleaning

Pollutant	PM/PM-10
Source of Emission Factor	Stack Test
Emission Factor	1.6
Units	gr/dscf
Emissions (ton/yr)	7848.14

(1) Note the potential PM emissions are based on stack test data for this emission unit and have been adjust to represent the uncontrolled emission rate by dividing the controlled emission rate by 1-99%.
(2) Note the potential PM-10 emissions were assumed to equal the total uncontrolled PM emission rate.

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM	326 IAC 6.5-6-26	gr/dscf	0.02	ton/yr	62

Equivalent pounds per hour emission rate = 22.40
Equivalent tons per year emission rate at 8760 hr/yr = 98.10

Compliance

(1) Based on a PM stack test performed in 9/2/88, this unit appears to be able to comply with the SIP limit of 0.02 gr/dscf, with an average emission rate of 0.016 gr/dscf
(2) Assuming an emission rate of 0.016 gr/dscf and an operating schedule of 1,968 hours per year, this emission unit would be in compliance with the long term emission limit of 62 ton/yr at 8760 hours of operation.
(3) Since this emission unit has a control device and allowable emissions are sufficiently high, compliance monitoring is required.

Appendix A: Emissions Calculations
EU-F14 - I-Shot Blast Machine

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F14
Description	I - Block Shot Blast Machine
Maximum Throughput Blocks	275
Maximum Block Weight (lbs)	485
Stack ID	SV-24
Max. Flow Rate (acfm)	22745
Stack Temperature	119
Max. Flow Rate (dscfm)	20819
Control Device	Baghouse
Control Efficiency	0.99
Date Installed/Modified	1989

Potential to Emit
Cleaning

Pollutant	PM/PM-10
Source of Emission Factor	Stack Test
Emission Factor	1.48
Units	gr/dscf
Emissions (ton/yr)	1156.78

(1) Note the potential PM emissions are based on stack test data for this emission unit and have been adjusted to represent the uncontrolled emission rate by dividing the controlled emission rate by 1-99%.
(2) Note the potential PM-10 emissions were assumed to equal the total uncontrolled PM emission rate

Allowable Emissions

Pollutant	Regulation	Units	Limit	Equivalent pounds per hour emission rate	tons per year emission rate
PM	326 IAC 6.5-1-2	gr/dscf	0.03	5.35	23.45
PM	326 IAC 2-2	lb/ton	0.036	2.4	10.5
PM-10/PM2.5	326 IAC 2-2	lb/ton	0.036	2.4	10.5

PSD Minor PM Limit: 10.5 ton/yr
10.5 (ton PM/yr) * 2000 (lb PM/ton PM) / 8760 (hr/yr) / 275 (engine blocks/hr) / 485 (lb/engine block) * 2000 (lb engine block/ton engine block) = 0.036 lb/ton

PSD Minor PM10 Limit: 10.5 ton/yr
10.5 (ton PM/yr) * 2000 (lb PM/ton PM) / 8760 (hr/yr) / 275 (engine blocks/hr) / 485 (lb/engine block) * 2000 (lb engine block/ton engine block) = 0.036 lb/ton

(1) Note that since emission units EU-F12 and EU-F14 were both installed in 1989 IDEM and OES are treating these units as one project with respect to PSD and limiting each emission unit's PTE to less than 12.5 tons of PM and 7.5 tons of PM-10 such that the PSD regulation does not appl

Compliance

(1) Based on a PM stack test performed in 7/28/93, this unit appears to be able to comply with the 326 IAC 6-1-2 and 326 IAC 2-2 limits, with an average emission rate of 0.0148 gr/dscf.
(2) Based on process information included in the application, this emission unit can comply with the throughput limits established to avoid PSD applicability.
(3) Since this emission unit is required to take a limit to avoid an applicable requirement, compliance monitoring is required

Appendix A: Emissions Calculations
EU-F15 - Casting Cleaning Operation

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 079-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F15	
Description	(1) Grinder, (1) BMD separator, (1) Belt Conveyor	
Maximum Capacity		
Grinder	275	engine blocks per hour
BMD Separator	275	engine blocks per hour
Block Weight	485	pounds
Belt Conveyor	22.83	Tons/hr
Stack ID	SV-25 a&b	these stacks exhausts a common clean air plenum on the Phase I baghouse.
Max. Flow Rate (acfm)	90000	
Stack Temperature	77	
Max. Flow Rate (dscfm)	90000	
Control Device	Baghouse	
Control Efficiency	0.99	
Date Installed/Modified	1975/2000	

Potential to Emit
Cleaning

Pollutant	PM/PM-10/PM2.5 (2)
Source of Emission Factor	Stack Test
Emission Factor (1)	0.23
Units	gr/dscf
Emissions (ton/yr)	777.14

(1) Note the potential PM emissions are based on stack test data for this emission unit and have been adjust to represent the uncontrolled emission rate by dividing the controlled emission rate by 1-99%.
(2) Note the potential PM-10/PM2.5 emissions were assumed to equal the total uncontrolled PM emission rate.

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM (All units vented to the Phase I BH)	326 IAC 6.5-6-26	gr/dscf	0.02	ton/yr	35.4
Induction Furnace Throughput	326 IAC 2-2	ton/yr	114,000	NA	NA
PM (EU-F15 and EU-F19)	326 IAC 2-2	lb/ton of metal	0.43	ton/yr	25
PM-10/PM2.5 (EU-F15 and EU-F19)	326 IAC 2-2	lb/ton of metal	0.25	ton/yr	15
PM (EU-F15 only)	326 IAC 2-2	lb/hr	0.23	ton/yr	1
PM-10/PM2.5 (EU-F15 only)	326 IAC 2-2	lb/hr	0.23	ton/yr	1

Updated Casting Cleaning PSD Minor Limits:
Limited PM Emissions: 1.00 ton/yr
1 (ton PM/yr) * 2000 (lb PM/ton PM) / 8,760 (hr/yr) = 0.23 lb/hr

Limited PM10/PM2.5 Emissions: 1.00 ton/yr
1 (ton PM/yr) * 2000 (lb PM/ton PM) / 8,760 (hr/yr) = 0.23 lb/hr

Compliance

(1) Based on a PM stack test performed on 12/1/88, this unit appears to be able to comply with the SIP limit of 0.02 gr/dscf for the existing equipment, with an average emission rate of 0.0023 gr/dscf.
(2) Pursuant to CP-98-0039-01, IDEM and OES are requiring ICC to conduct a stack test for PM to document compliance with 326 IAC 6-1-12.
(3) Pursuant to CP-98-0039-01, IDEM and OES are requiring ICC to conduct stack tests for PM, PM-10 and Pb to document compliance with 326 IAC 2-2.
(4) Since this emission unit has a control device and allowable emissions are sufficiently high, compliance monitoring is required.

Appendix A: Emissions Calculations
EU-F16 - Sand Handling Operation
Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 079-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F16	
Description	Sand Handling	
Maximum Throughput Sand	100	ton/hr
Stack ID	SV-26	
Max. Flow Rate (acfm)	28862	
Stack Temperature	70	
Max. Flow Rate (dscfm)	28862	
Control Device	Baghouse	
Control Efficiency	0.99	
Date Installed/Modified	1996	

Potential to Emit
Sand Handling

Pollutant	PM/PM-10/PM2.5
Source of Emission Factor	Stack Test
Emission Factor	0.56
Units	gr/dscf
Emissions (ton/yr)	370.30

(1) Note the potential PM emissions are based on stack test data for this emission unit and have been adjust to represent the uncontrolled emission rate by dividing the controlled emission rate by 1-99%.
(2) Note the potential PM-10/PM2.5 emissions were assumed to equal the total uncontrolled PM emission rate.

Allowable Emissions

Pollutant	Regulation	Units	Limit	Units	Limit
PM	326 IAC 6.5-1-2	gr/dscf	0.03	NA	NA
PM	326 IAC 2-2	lb PM/ton sand	0.057	ton/yr	25
PM10/PM2.5	326 IAC 2-2	lb PM10/ton sand	0.034	ton/yr	15

Limited PM Emissions: less than 25 ton/yr
25 (ton PM/yr) * 2000 (lb PM/ton PM) / 100 (ton sand/hr) / 8760 (hr/yr) = less than 0.057 lb PM/ton sand

Limited PM10 Emissions: less than 15 ton/yr
15 (ton PM10/yr) * 2000 (lb PM10/ton PM10) / 100 (ton sand/hr) / 8760 (hr/yr) = less than 0.034 lb PM10/ton sand

Compliance

(1) Based on a PM stack test performed in 3/27/96, this unit appears to be able to comply with the 326 IAC 6.5-1-2 and 326 IAC 2-2 limits with an average emission rate of 0.0056 gr/dscf.
(2) Based on process information included in the application, this emission unit can comply with the throughput limits established to avoid PSD applicability.
(3) Since this emission unit is required to take a limit to avoid an applicable requirement, compliance monitoring is required.

Appendix A: Emissions Calculations
EU-F06N (Head Grinding) and EU-F07N (Block Broaching)

Company Name:	**Navistar, inc**
Address City IN Zip:	**5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number:	**079-30905-00039**
Reviewer:	**Ghassan Shalabi**
Date:	**11/28/2011**

EU-F06N -- Head Grinding Operation Baghouse
PM/PM-10/PM2.5 (controlled) = Grain Loading (grains/acfm) x Flowrate (acfm)
PM/PM-10/PM2.5 (controlled) = 0.005 (grains/acfm) x 21,000 (acfm) x 60 (min/hr) x 1 (lb/7000 grains)
PM/PM-10 /PM2.5 (controlled) = 0.9 (lb/hr)
PM/PM-10/PM2.5 (controlled) = 0.9 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 3.94 (ton/yr)
PM (uncontrolled) = 17 (lb/ton metal) * 5 (tons/hr) = 85 (lb/hr)
PM (uncontrolled) = 85 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 372.3 (ton/yr)
PM-10/PM2.5 (uncontrolled) = 1.7 (lb/ton metal) * 5 (tons/hr) = 8.5 (lb/hr)
PM-10/PM2.5 (uncontrolled) = 8.5 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 37.2 (ton/yr)

EU-F07N -- Block Broaching Operation Baghouse
PM/PM-10/PM2.5 (controlled) = Grain Loading (grains/acfm) x Flowrate (acfm)
PM/PM-10/PM2.5 (controlled) = 0.005 (grains/acfm) x 21,000 (acfm) x 60 (min/hr) x 1 (lb/7000 grains)
PM/PM-10/PM2.5 (controlled) = 0.9 (lb/hr)
PM/PM-10/PM2.5 (controlled) = 0.9 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 3.94 (ton/yr)
PM (uncontrolled) = 17 (lb/ton metal) * 10 (tons/hr) = 170 (lb/hr)
PM (uncontrolled) = 170 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 744.6 (ton/yr)
PM-10/PM2.5 (uncontrolled) = 1.7 (lb/ton metal) * 10 (tons/hr) = 17 (lb/hr)
PM-10/PM2.5 (uncontrolled) = 17 (lb/hr) x 8760 (hr/yr) x 1 (ton/2000 lb) = 74.5 (ton/yr)

Appendix A: Emissions Calculations

EU-F18a, b, d - Fugitives

Company Name: **Navistar, inc**

Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**

Permit Number: **079-30905-00039**

Reviewer: **Ghassan Shalabi**

Date: **11/28/2011**

Emission Unit ID	EU-F18a	EU-F18b	EU-F18d
Description	Charge Handling	Waste Sand Transfer/Dumping	Sand Handling Escaping Building
Maximum tons metal charged	40	20	25.74
Date Installed/Modified	Prior to 1979	Prior to 1979	Prior to 1979

Charge Handling

Pollutant	PM-10	PM-2.5	PM
Source of Emission Factor	SCC30400315	assume = PM10	SCC30400315
Emission Factor	0.36	0.36	0.6
Units	lbs/ton metal	lbs/ton metal	lbs/ton metal
Emissions (ton/yr)	63.07	63.07	105.12

Waste Sand Transfer and Dumping

Pollutant	PM-10	PM-2.5	PM
Source of Emission Factor	AP-42 Sect. 12.5	AP-42 Sect. 12.5	AP-42 Sect. 12.5
Emission Factor	0.52	0.52	1.04
Units	lbs/ton sand	lbs/ton sand	lbs/ton sand
Emissions (ton/yr)	45.55	58.64	91.10

Sand Handling Escaping Building

Pollutant	PM-10	PM-2.5	PM
Source of Emission Factor	SCC 30400350	assume = PM2.5	SCC 30400350
Emission Factor	0.36	0	0.36
Units	lbs/ton sand	lbs/ton sand	lbs/ton sand
Emissions (ton/yr)	40.59	0.00	40.59

(1) Note assumes 10% escapes as fugitive dust.

Appendix A: Emissions Calculations
EU-F18c - Fugitives

Company Name: Navistar, inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 079-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F18c
Description	Waste Pile - Sand Dumping, Pile Loadout, Wind Erosion
Maximum tons dumped in pile	93,000
Acerage	0.25

Sand Dumping

Pollutant	PM-10	PM-2.5	PM
Source of Emission Factor	Fire	assume = PM10	Fire
Emission Factor	0.04	0.04	0.04
Units	lbs/ton sand	lbs/ton sand	lbs/ton sand
Emissions (ton/yr)	1.86	0	1.86

Pile Loadout

Pollutant	Particulate Size Multiplier (k)	Mean Wind Speed mph, (U)	Material Moisture Content % (M)	Emission Factor (lbs/ton)	Emissions (tons/yr)
PM	0.74	9.6	2	0.0055	0.26
PM-10	0.35	9.6	2	0.0026	0.12

Storage Pile Wind Erosion

Pollutant	Silt Content AP-42 Table 13-24-1 (s)	Number of Days with Precipitation (p)	Frequency of time WS >12 MPH (f)	Emission Factor (lbs/acre/day)	Emission Rate (tons/yr)
PM	15	130	22	24.93	1.14

Total Emissions from Storage Pile 3.25 ton PM/yr
3.12 ton PM-10/yr

Appendix A: Emissions Calculations
EU-F18e - Fugitives

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 079-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Emission Unit ID	EU-F18e
Description	Paved Roads
Date Installed/Modified	Prior to 1979

Pollutant	Road surface silt loading g/m2 (sL)	Base emission factor (k)	Annual # loaded (loads/yr)	Total Annual VMT (miles/yr)	Average Vehicle Weight (tons)	Emission Factor (lbs/VMT)	Emission Rate (ton/yr)
PM	9.7	0.082	2392	1196	15.5	2.69	1.61
PM-10/PM2.5	9.7	0.016	2392	1196	15.5	0.52	0.31

Appendix A: Emissions Calculations
Phase 1 NG-fired preheater

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
19.5	1000	170.8

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/y	10,249	0.2	0.2
Summed Potential Emissions in tons/yr	10,250		
CO2e Total in tons/yr	10,312		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP

Appendix A: Emissions Calculations
3 NG-fired preheaters

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
19.5	1000	170.8

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/y	10,249	0.2	0.2
Summed Potential Emissions in tons/yr	10,250		
CO2e Total in tons/yr	10,312		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP

Appendix A: Emissions Calculations
3 NG-fired preheaters

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
0.8	1000	6.6

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/y	394	0.0	0.0
Summed Potential Emissions in tons/yr	394		
CO2e Total in tons/yr	397		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP

Appendix A: Emissions Calculations
8 NG Drying Ovens

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
24.8	1000	217.2

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.2	0.8	0.8	0.1	10.9	0.6	9.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only

HAPs Emissions

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.281E-04	1.303E-04	8.147E-03	1.955E-01	3.693E-04	2.044E-01

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.431E-05	1.195E-04	1.521E-04	4.128E-05	2.281E-04	5.953E-04
						2.050E-01

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See Page 3 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only

Greenhouse Gas Emissions

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	13,035	0.2	0.2
Summed Potential Emissions in tons/yr	13,035		
CO2e Total in tons/yr	13,114		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential

Appendix A: Emission Calculations
Propane, LPG, or Butane-fired Combustion Source

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content = 0.00 grains/100ft^3
6.00	574.43	

	Pollutant						
	PM*	PM10*	direct PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.2	0.8	0.8	0.0	15.0	1.1	8.4
				(0.10S)		**TOC value	
Potential Emission in tons/	0.1	0.2	0.2	0.0	4.3	0.3	2.4

*PM emission factor is filterable PM only. PM emissions are stated to be all less than 10 microns in aerodynamic

** No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane
(Source - AP-42 (Supplement B 10/96) page 1.5-1)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Propane Emission Factors shown. Please see AP-42 for butane.
Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton
See Page 2 for Greenhouse Gas calculations.

Appendix A: Emission Calculations
LPG-Propane - Industrial Boilers
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)
Greenhouse Gas

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/kgal	14,300	0.2	0.9
Potential Emission in tons/	4,107	0.1	0.3
Summed Potential Emissions in tons/yr	4,107		
CO2e Total in tons/yr	4,188		

Methodology

The CO2 Emission Factor for Propane is 12500. The CO2 Emission Factor for Butane is 14300.
Emission Factors are from AP 42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: **Navistar, Inc**
Address City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	325.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	2,847,000

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/	3.13	3.13	3.13	2.92	44.13	3.58	9.51

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/	9.30E-03	4.08E-03	2.84E-03	3.90E-04	1.18E-02	7.64E-03	9.22E-04	1.67E-03

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**3.86E-02**

Company Name: Navistar, Inc
Address City IN Zip: 5565 Brookville Road, Indianapolis, Indiana 46219
Permit Number: 097-30905-00039
Reviewer: Ghassan Shalabi
Date: 11/28/2011

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/	1.64E+03	6.59E-02	1.32E-02

Summed Potential Emissions in tons/yr	**1.64E+03**
CO2e Total in tons/yr	**1.64E+03**

Methodology

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Fuel Oil-fired Combustion Source

Company Name: **Navistar, Inc**
Address, City IN Zip: **5565 Brookville Road, Indianapolis, Indiana 46219**
Permit Number: **097-30905-00039**
Reviewer: **Ghassan Shalabi**
Date: **11/28/2011**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year
1.5	93.8571429

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/kgal	21,500	0.216	0.26
Potential Emission in tons/yr	1,009	0.0	0.0
Summed Potential Emissions in tons/yr	1,009		
CO2e Total in tons/yr	1,013		

Methodology

The CO2 Emission Factor for #1 Fuel Oil is 21500. The CO2 Emission Factor for #2 Fuel Oil is 22300.
Emission Factors are from AP 42, Tables 1.3-3, 1.3-8, and 1.3-12 (SCC 1-03-005-01/02/03) Supplement E 9/99 (see
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Gardner Painter
Navistar, Inc.
5565 Brookville Rd
Indianapolis, IN 46219

DATE: April 19, 2012

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

SUBJECT: Final Decision
Title V - Renewal
097 - 30905 - 00039

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Eric Tharp Plant Mgr Navistar, Inc
Erin Surinak Environmental Resources Management
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

April 19, 2012

TO: Irvington Branch Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Navistar, Inc.
Permit Number: 097 - 30905 - 00039

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

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

Mitchell E. Daniels Jr.
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Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 19, 2012

RE: Navistar, Inc. / 097 - 30905 - 00039

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
http://www.in.gov/ai/appfiles/idem-caats/

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08

Mail Code 61-53

IDEM Staff	LPOGOST 4/19/2012 Navistar, Inc 097 - 30905 - 00039 final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Gardner Painter Navistar, Inc 5565 Brookville Rd Indianapolis IN 46219 (Source CAATS) Via confirmed delivery									
2		Eric Tharp Plant Mgr Navistar, Inc 5565 Brookville Rd Indianapolis IN 46219 *(RO CAATS)*									
3		Marion County Health Department 3838 N, Rural St Indianapolis IN 46205-2930 *(Health Department)*									
4		Indianapolis City Council and Mayors Office 200 East Washington Street, Room E Indianapolis IN 46204 *(Local Official)*									
5		Marion County Commissioners 200 E. Washington St. City County Bldg., Suite 801 Indianapolis IN 46204 *(Local Official)*									
6		Erin Surinak Environmental Resources Management (ERM) 11350 N Meridian Street Suite 320 Carmel IN 46032 *(Consultant)*									
7		Matt Mosier Office of Sustainability 1200 S Madison Ave #200 Indianapolis IN 46225 *(Local Official)*									
8		Irvington Branch Library 5625 E. Washington Street Indianapolis IN 46219 *(Library)*									
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