INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To:	Interested Parties
Date:	December 30, 2014
From:	Matthew Stuckey, Chief Permits Branch Office of Air Quality
Source Name:	Steel Dynamics, Inc. – Flat Roll Division
Permit Level:	Title V Operating Permit Renewal
Permit Number:	033-30061-00043
Source Location:	4500 County Road 59 Butler, Indiana
Type of Action Taken:	Permit Renewal

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 matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, select Search option 3, then enter permit 30061.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

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

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)

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:

(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.

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Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Steel Dynamics, Inc. - Flat Roll Division
4500 County Road 59
Butler, Indiana 46721

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

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

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

Operation Permit No.: T033-30061-00043	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 30, 2014 Expiration Date: December 30, 2019

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Attachment D - New Source Performance Standards for Small industrial Boilers, Commercial-Institutional Steam Generating Boilers [40 CFR 60, Subpart Dc]
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Attachment F - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]
Attachment G - New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII]
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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1- General Information, A.2 - Part 70 Source Definition, A.3 - Emission Units and Pollution Control Equipment Summary and A.4 - Insignificant Activities is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary steel minimill.

Source Address:	4500 County Rd 59, Butler, Indiana 46721
Phone Number:	260-868-8000
SIC Code:	3312
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules 1 of 28 Source Categories Minor Source, Section 112 of the Clean Air Act

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

The source consists of:

(a) Steel Dynamics, Inc. - Flat Roll Division (SDI-Flat Roll), located at 4500 County Road 59, Butler, Indiana 46721; and

(b) Steel Dynamics, Inc. - Iron Dynamics Division (SDI-IDD), located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033-00043) and Steel Dynamics, Inc. - Iron Dynamics Division (033-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. - Flat Roll Division, the primary operation.

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

Steel Dynamics, Inc. - Flat Roll Division consists of the following emission units and pollution control devices:

Melt Shop Operations

(a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

(1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour**,** permitted in 1994 for construction;

(2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 and one (1) permitted in 1995 for construction;

(3) Three (3) natural gas fired tundish ladle dryers with a nominal heat input capacity of 1.5 MMBtu per hour each, one (1) permitted in 1994 and two (2) permitted in 1995 for construction;

(4) Two (2) natural gas-fired tundish preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and

(5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

(1) Twenty - one (21) storage silos including the following:

(A) Three (3) EAF dust silos consisting of:

(i) Bin vent 5a for particulate matter control permitted in 1994 for construction,

(ii) Bin vent 5b for particulate matter control permitted in 1997 for construction and

(iii) Bin vent 5c for particulate matter control, permitted in 2007 for construction.

(B) Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and

(C) Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.

(D) Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.

(E) One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through Stack 46.

(F) One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.

(G) Six (6) Lime/carbon silos, permitted in 1995 for construction, with three (3) silos routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.

(2) Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.

(e) Slag pit digouts associated with each electric arc furnace.

(f) Melt shop building openings, dust handling system and melt shop roof monitors.

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in 2013 for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

(a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.

(b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.

(c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

Hot Mill Operations - Tunnel Furnaces

(a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NOx burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.

(b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NOx burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

Cold Mill Operations – Pickling Line

One (1) pickling line, with a nominal capacity of 1.4 million ton per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.

Pickle Line Scale Breaker

One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Pickle Line Boilers

Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.

Reversing Mill

One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.

Galvanizing Lines

(a) One (1) hot band galvanizing line with a nominal capacity of 400,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 45 MMBtu per hour, exhausting through Stack 19.

(b) Twenty-four (24), natural gas fired radiant tube heaters associated with the galvanizing line, permitted in 2002 for construction. Each heater has a nominal heat input of 0.3 MMBtu per hour, exhausting inside the building.

(c) One (1) cold rolled galvanizing line with a nominal capacity of 300,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 55 MMBtu per hour, exhausting to Stack 19.

Annealing Furnaces

Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

Paint Line (Coil Coating Line)

(a) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour name plate rated heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

(b) Two (2) curing ovens, permitted in 2002 for construction, with a combined nominal heat input capacity of 16 MMBtu per hour using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

(a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;

(b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(e) One (1) 30" conveyor (#6), with a nominal capacity of 100 tons per hour, permitted in 1994 for construction;

(f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;

(k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;

(l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;

(o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;

(p) One (1) jaw crusher, with a nominal capacity of 100 tons per hour, permitted in 2003 for construction, and

(q) Aggregate Storage Piles.

(r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from parts of the slag handling operations are controlled as needed by water sprays.

Fugitive Dust Sources

(a) Paved roads,

(b) Parking areas,

(c) Unpaved roads, and

(d) Traveled open areas.

Emergency Generators

(a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

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

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

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-2-4]

(1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

(b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower. [40 CFR 63, Subpart ZZZZ]

(1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw (670 hp). [40 CFR 60, Subpart IIII]

(c) 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. This facility includes the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

(d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]

(1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.

(2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

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

Steel Dynamics, Inc. - Flat Roll Division also includes the following insignificant activities:

(a) Combustion source flame safety purging on startup.

(b) Fuel dispensing activities, including the following:

(1) 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. This facility includes: Two (2) gasoline dispensing operations, approved in 2013 for construction, identified as T2 and T3.

(2) 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. A petroleum fuel, other than gasoline, dispensing facility having a storage capacity

less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thirty thousand (230,000) gallons per month. This facility includes the following:

(A) One (1) diesel storage tank, approved in 2013 for construction, identified as T1 or Diesel Storage Tank #1, with a nominal storage capacity of two thousand (2,000) gallons.

(B) One (1) diesel storage tank, approved in 2013 for construction, identified as T4 or Diesel Storage Tank #4, with a nominal storage capacity of five thousand (5,000) gallons.

(C) Two (2) diesel dispensing operations, approved in 2013 for construction, identified as T1 and T4.

(c) 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.

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

(d) Refractory storage not requiring air pollution control equipment.

(e) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.

(f) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

(g) Machining where an aqueous cutting coolant continuously floods the machining interface.

(h) Closed loop heating and cooling systems.

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

(j) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner or Operator, that is, an on-site sewage treatment facility.

(k) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.

(l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

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

(n) Heat exchanger cleaning and repair.

(o) Process vessel degassing and cleaning to prepare for internal repairs.

(p) Purging of gas lines and vessels that is related to 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.

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

(r) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(s) On-site fire training approved by the department.

(t) Purge double block and bleed valves.

(u) Filter or coalescer media changeout.

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

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

(x) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).

(y) Brazing equipment, cutting torches, soldering equipment, and welding equipment related to manufacturing activities not resulting in emissions of HAPs.

(z) One (1) electric Temper Mill, used to align steel fibers, with no emissions.

(aa) One (1) solvent recovery system, associated with the Paint Line (Coil Coating Line), with a nominal throughput of 25,410 gallons of solvent recovered per year, and exhausting inside.

A.6 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); and

(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, T033-30061-00043, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit

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

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

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

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

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

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

(i) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

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

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

(c) A responsible official is defined at 326 IAC 2-7-1(35).

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

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

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

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T033-30061-00043 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.

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

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

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

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

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

(1) That this permit contains a material mistake.

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

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

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

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

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

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

Request for renewal shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region 5
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)(1) or (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

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

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

(3) Any change in emissions; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

The Permittee shall not operate an incinerator 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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

C.9 Performance Testing [326 IAC 3-6]

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

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

Compliance Requirements [326 IAC 2-1.1-11]

C.10 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.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64] [326 IAC 3-8]

(a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

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 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 the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

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

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

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

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

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

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

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6][40 CFR 64][326 IAC 3-8]

(a) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:

(1) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

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

(A) initial inspection and evaluation;

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

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

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

(A) monitoring results;

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

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

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

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

(b) CAM Response to excursions or exceedances.

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

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(c) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the

results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

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

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

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

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

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

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

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

(i) CAM recordkeeping requirements.

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

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

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

(a) When the results of a Stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the

Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy five (75) days after the date of the test.

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

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

(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 purpose of Section 19 of this rule") from the source, for purposes of fee assessment.

The statement must be submitted to:

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

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

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

(1) All calibration and maintenance records.

(2) All original strip chart recordings for continuous monitoring instrumentation.

(3) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

(1) The date, place, as defined in this permit, and time of sampling or measurements.

(2) The dates analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

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

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
  - (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1(kk)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

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

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

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

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2] [40 CFR 64] [326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B.11 – Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted no later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

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

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C.15 - Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

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

(b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or

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

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C.18 - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj) at an existing emissions unit and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C.18 - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp)), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C.18 - 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.18 - 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.18 - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.0 FACILITY OPERATION CONDITIONS

Emission Unit Description: Entire Source HAP Limitation

(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.0.1 HAP Minor Limitation [40 CFR 63.1]

To ensure the Permittee meets the definition of an area source under 40 CF R 63.2, the Permittee shall comply with the following:

(a) Source wide total HAP emissions shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Source-wide chromium HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Source-wide manganese HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall limit the HAP emissions from the entire source to less than ten (10) tons of any single HAP and less than twenty-five (25) tons of total HAPs per twelve (12) consecutive month period, respectively, and the entire source is rendered an area source of HAP Emissions under Section 112 of the Clean Air Act (CAA).

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

D.0.2 Hazardous Air Pollutants

In order to demonstrate compliance with Condition D.0.1 - HAP Minor Limitation, the Permittee shall use the following equations:

(a) Chromium(total) = [(RHF Stack $40_{CHROMIUM}$ + RHF Stack $77_{CHROMIUM}$) x RHF_{HOURS} + (SAF Stack $58_{CHROMIUM}$ x SAF_{HOURS}) + $\#79_{CHROMIUM}$ + ($IDD_{CHROMIUM\ CONSTANT}$ + $FR_{CHROMIUM\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

(b) Manganese(total) = [(RHF Stack $40_{MANGANESE}$ + RHF Stack $77_{MANGANESE}$) x RHF_{HOURS} + (SAF Stack $58_{MANGANESE}$ x SAF_{HOURS}) + $\#79_{MANGANESE}$ + ($IDD_{MANGANESE\ CONSTANT}$ + $FR_{MANGANESE\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

(c) HAPS(total) = [PL_{HAPS} + Chromium(total) + Manganese(total) ($IDD_{HAPS\ CONSTANT}$ + $FR_{HAPS\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

Where:

PL_{HAPS} = total haps (month) as determined in Condition D.10.7 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

RHF Stack $40_{CHROMIUM}$ = chromium emissions from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack $40_{MANGANESE}$ = manganese emissions from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$RHF\ Stack\ 77_{CHROMIUM}$ = chromium emissions from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$RHF\ Stack\ 77_{MANGANESE}$ = manganese emissions from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 multiplied as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$SAF\ Stack\ 58_{CHROMIUM}$ = chromium emissions from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$SAF\ Stack\ 58_{MANGANESE}$ = manganese emissions from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$\#79_{CHROMIUM}$ = chromium emissions from the SAF Dust Recycling System Stack as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

$\#79_{MANGANESE}$ = manganese emissions from the SAF Dust Recycling System Stack 79 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF_{HOURS} = Hours of RHF operation for the reporting month

SAF_{HOURS} = Hours of SAF operation for the reporting month

$IDD_{CHROMIUM\ CONSTANT}$ = 3.17E-03 Chromium (lb/hr)

$FR_{CHROMIUM\ CONSTANT}$ = 2.29E-03 Chromium (lb/hr)

$IDD_{MANGANESE\ CONSTANT}$ = 0.16 Manganese (lb/hr)

$FR_{MANGANESE\ CONSTANT}$ = 0.12 Manganese (lb/hr)

$IDD_{HAPS\ CONSTANT}$ = 1.15 HAPs (lb/hr)

$FR_{HAPS\ CONSTANT}$ = 0.37 HAPs (lb/hr)

Hours each month = hours in each reporting month; e.g., June (30 days x 24 hrs/day) = 720 hrs/month

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

D.0.3 Record Keeping Requirements

(a) To document the compliance status with Conditions D.0.1 – HAP Minor Limitation and D.0.2 – Hazardous Air Pollutants, the Permittee shall maintain records in accordance with (1) through (15) below. Records maintained for (1) through (15) shall be complete and sufficient to establish compliance with the emission limits established in Condition D.0.1.

(1) Calendar dates covered in the compliance determination period.

(2) Monthly records of the HAPs(total) emissions.

(3) Monthly records of the Chromium(total) emissions.

(4) Monthly records of the Manganese(total) emissions.

(5) Monthly records of the total haps emissions from the paint line.

(6) The RHF Stack $40_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(7) The RHF Stack $40_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(8) The RHF Stack $77_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(9) The RHF Stack $77_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(10) The SAF Stack $58_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(11) The SAF Stack $58_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(12) The $\#79_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(13) The $\#79_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(14) The RHF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

(15) The SAF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

(b) Section C.19 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.0.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.0.1 – HAP Minor Limitation shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C.19- General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.1 FACILITY OPERATION CONDITIONS (MELT SHOP)

Emission Unit Description:

Melt Shop Operations

(a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of a canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

(1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour**,** permitted in 1994 for construction;
(2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 for construction and one (1) permitted in 1995 for construction;
(3) Three (3) natural gas-fired tundish dryers with nominal heat input capacity of 1.5 MMBtu per hour each one (1) permitted in 1994 and two (2) permitted in 1995 for construction;
(4) Two (2) natural gas-fired tundish ladle preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and
(5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

(1) Twenty-one (21) outside storage silos including the following:
- (A) Three (3) EAF dust silos, consisting of:
  - (i) Bin vent 5a for particulate matter control, permitted in 1994 for construction,
  - (ii) Bin vent 5b for particulate matter control, permitted in 1997 for construction;
  - (iii) Bin vent 5c for particulate matter control, permitted in 2007 for construction.
- (B) Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and
- (C) Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.
- (D) Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.
- (E) One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through stack 46.
- (F) One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.
- (G) Six (6) Lime/carbon silos, permitted in 1995 for construction, with three (3) silos

routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.

(2) Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.

(e) Slag pit dig outs associated with each electric arc furnace.

(f) Melt Shop building openings, dust handling system and Melt Shop roof monitors.

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

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

D.1.1 Particulate (PM/PM-10) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to PSD CP 033-8091-00043, issued June 25, 1997, PSD SSM 033-23028-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements):

(1) The PM/PM10 emissions from EAF #1 South shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture exhausted to EAF Baghouse 1 with a minimum 99.85 control efficiency for filterable PM/PM10, discharging through Stack 01. A negative pressure shall be maintained to draw particulate matter through the DSE duct. Baghouse 1 shall be operated at all times when the EAF #1 South is in operation.

(2) The PM/PM10 emissions from EAF #2 North shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture and shall exhaust to EAF Baghouse 2 with a minimum 99.85 control efficiency for filterable PM/PM10, which discharges through Stack 92. A negative pressure shall be maintained to draw particulate matter through the DSE duct. Baghouse 2 shall be operated at all times when the EAF #2 North is in operation.

(3) The PM/PM10 emissions from EAF #2 North and EAF #1 South shall not exceed the limits in the following table:

Unit (Control)	**Filterable PM/PM10 Limits**		**Filterable and Condensable PM10 Limits**	
	(gr/dscf)	**(lb/hr)**	**(gr/dscf)**	**(lb/hr)**
EAF #1 South (EAF Baghouse 1)	0.0018	20.1	0.0052	57.9
EAF #2 North (EAF Baghouse 2)	0.0018	15.3	0.0052	44.3

(b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), PM/PM10 emissions from the continuous casters shall be captured by canopy hoods and exhausted to EAF baghouse 1 and then to Stack 01. Baghouse 1 shall be operated at all times when the continuous casters are in operation.

(c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the Permittee shall do the following as needed:

(1) Mechanically reduce skulls, coils and steel scrap in size.

(2) Oxygen lancing/cutting of any skulls, coils and steel scrap not mechanically reduced in size shall be conducted inside a building with adequate capture of emissions by a control system and a baghouse to control emissions.

(d) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), the filterable PM/PM10 emissions from EAF dust silo 5c shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf).

D.1.2 Nitrogen Oxides (NOx) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the total NO_x emissions from the EAF#1 South (Stack 01) and EAF#2 North (Stack 92) using low-NOx natural gas fired burners shall not exceed 0.51 pounds per ton of steel produced and 204.0 pounds per hour.

(b) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the Ladle Dryout Station (LDS) shall be limited to the use of natural gas, shall not exceed 10 MMBtu per hour heat input and NOx emissions shall not exceed 0.10 lbs/MMBtu.

(c) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the four (4) Ladle Preheat Stations (LPS) shall be limited solely to the use of low-NOx natural gas-fired burners. The four (4) horizontal preheater stations combined shall not exceed 40 MMBtu per hour heat input and the NOx emissions shall not exceed 0.14 lbs/MMBtu.

(d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD -Control Technology Review; Requirements), the three (3) Tundish dryers shall use low-NOx burners. Each burner shall be limited to 1.5 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.

(e) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the two (2) Tundish Preheaters shall use low-NOx burners. Each burner shall not exceed 9.4 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.

D.1.3 Sulfur Dioxide (SO2) Limitations - Best Available Control Technology [326 IAC 2-2][326 IAC 7-1.1]

(a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the combined SO2 emissions from the LMF (Stack 61), EAF #1 South (Stack 01) and EAF #2 North (Stack 92) shall not exceed 0.2 pounds per ton of steel produced and 80 pounds of SO2 per hour.

(b) Pursuant to CP 033-8091-00043, issued June 24, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the SO2 emissions from the EAFs shall be controlled by the use of high quality scrap and monitoring the sulfur content of the coke.

D.1.4 Carbon Monoxide (CO) Limitations - Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD – Control Technology Review; Requirements), the CO emissions from EAFs shall be controlled by an adjustment gap between the EAF direct shell evacuation system (DSE) and the remaining water cooled duct to common baghouse. The CO emissions from each EAF shall not exceed 2.0 pounds per ton of hot steel produced. The total emissions from EAF #1 South (Stack 1) and EAF #2 North (Stack 92) shall not exceed 800 pounds per hour. A negative pressure shall be maintained at the gap. The direct shell evacuation system, Baghouse 1, and Baghouse 2 shall be operated at all times when the EAF exhausting to it is in operation.

D.1.5 Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements):

(a) VOC emissions from EAFs shall be controlled through a scrap management program. The Permittee shall implement the SMP, which shall be in writing and available for inspection. The SMP shall provide at a minimum:

(1) All grades of scrap charged to the furnaces shall not contain excessive non-metallics.

(2) All grades of scrap shall not contain excessive oil and grease.

(3) Heavily oiled scrap shall not be used.

(b) Total VOC emissions from the EAF EAF#1 South (Stack 01) and EAF#2 North (Stack 92) shall be limited to 0.13 pounds of VOC emissions per ton of steel produced and shall not exceed 52.0 pounds per hour.

D.1.6 Lead Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the total lead emissions from EAF Baghouse 1 (Stack 1) and EAF Baghouse 2 (Stack 92) shall not exceed 0.19 pounds per hour.

D.1.7 Mercury PSD Minor Limit [326 IAC 2-2]

The total mercury emissions from EAF Baghouse 1 and EAF Baghouse 2 shall not exceed 0.022 pounds per hour. Compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to CP 033-8091-00043.

D.1.8 Visible Emission Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), visible emissions from the EAF Baghouse 1 and EAF Baghouse 2 stack exhausts (Stack 1 and Stack 92, respectively) shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the fugitive emissions generated by the EAFs shall not exceed three percent (3%) opacity from any building opening as determined by a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9). Three percent (3%) opacity is reflective of 100 percent capture.

(c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the EAF slag pit dig out operation located beneath each furnace shall not exceed five (5%) percent opacity. Each EAF slag pit dig out operation shall be controlled with the use of its associated EAF's baghouse.

(d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD -Control Technology Review Requirements), visible emissions from the building opening and EAF dust handling system shall not exceed three percent (3%) opacity based on a six-minute average(24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

(e) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the carbon and flux additive system conveyors and transfer points shall be enclosed and vented indoors.

(f) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), visible emissions of the exhaust from EAF dust silo 5c shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

D.1.9 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) EAF dust silos (bin vent 5a and bin vent 5b), twelve (12) Lime/carbon silos, two (2) alloy silos and the carbon silo shall be calculated with the following equation:

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

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

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.1.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the EAFs, continuous casters (#1 and #2), EAF dust silo 5c and associated control devices. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.1.1(a) - Particulate (PM/PM10) Limitations - Best Available Control Technology, the Permittee shall perform PM/PM10 testing on the EAF #1 South and EAF #2 North (Stack 01 and Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration

(b) In order to demonstrate compliance with Condition D.1.2(a) - Nitrogen Oxides (NO_x) Limitations - Best Available Control Technology, the Permittee shall perform NOx testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92), utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(c) In order to demonstrate compliance with Conditions D.1.3(a) - Sulfur Dioxide (SO_2) Limitations - Best Available Control Technology, the Permittee shall perform simultaneous, SO2 testing on EAF #1 South, EAF #2 North and the LMF (Stack 01, Stack 92 and LMF Stack 61), utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(d) In order to demonstrate compliance with Conditions D.1.4 - Carbon Monoxide (CO) Limitations - Best Available Control Technology, the Permittee shall perform CO testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(e) In order to demonstrate compliance with Condition D.1.5(b) - Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology, the Permittee shall perform VOC testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92)

utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(f) In order to demonstrate compliance with Conditions D.1.6 - Lead Limitations - Best Available Control Technology and D.1.8 - Mercury Limitations, the Permittee shall perform lead and mercury testing on EAF #1 South (Stack 01) and EAF #2 North (Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(g) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.8 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.1.12 Particulate Control

Bin vent filter 5c shall control filterable emissions from EAF dust silo 5c at all times necessary to meet the requirements of Condition D.1. 1(d) – Particulate (PM/PM-10) Limitations – Best Available Control Technology.

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

D.1.13 Visible Emission Notations

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997, and PSD SSM 033-23028-00043, visible emission notations of the melt shop building openings, dust handling system, melt shop roof monitors and bin vent filter 5c shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.14 Bag Leak Detection System (BLDS)

The Permittee shall comply with the following:

(a) The Permittee shall install and operate a continuous bag leak detection system (BLDS) on EAF Baghouse #1 and EAF Baghouse #2.

(b) The BLDS shall meet the following requirements:

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.00044 grains per actual cubic foot or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loading.

(3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test or established according to paragraph (4). The alarm must be located such that it can be heard by the appropriate plant personnel.

(4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(5) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse, is in good operating condition.

(6) Failure to take response steps shall be considered a deviation from this permit.

(7) Whenever a BLDS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup BLDS is not online within twenty-four (24) hours of shutdown or malfunction of the primary BLDS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(A) Opacity from the EAF Baghouse #1 and EAF Baghouse #2 shall be performed at least once per day during normal daylight operations. A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.

(B) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.

(C) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C.15 – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. Abnormal emissions are not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements

D.1.15 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.8 - Visible Emission Limitations - Best Available Control Technology and 1.13 - Visible Emissions Notations, the Permittee shall maintain records of visible emission notations required by Condition D.1.13 - Visible Emissions Notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document the compliance status with condition D.1.14 – Bag Leak Detection System (BLDS), the Permittee shall maintain records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.

(c) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.16 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the Electric Arc Furnaces, except as otherwise specified in 40 CFR Part 60, Subpart AAa.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

D.1.17 Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 NSPS [40 CFR 60, Subpart AAa][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart AAa, the Permittee shall comply with the provisions of 40 CFR 60, Subpart AAa, which are incorporated by reference as 326 IAC 12 (included as Attachment B to this permit), for the Electric Arc Furnaces:

(1) 40 CFR 60.270a
(2) 40 CFR 60.271a
(3) 40 CFR 60.272a
(4) 40 CFR 60.273a
(5) 40 CFR 60.274a
(6) 40 CFR 60.275a
(7) 40 CFR 60.276a

D.1.18 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.10690, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the electric arc furnace steelmaking facilities as specified in 40 CFR 63, Subpart YYYYY, in accordance with schedule in 40 CFR 63 Subpart YYYYY.

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

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.1.19 Area Sources: Electric Arc Furnace Steelmaking Facilities NESHAP [40 CFR Part 63, Subpart YYYYY]

Pursuant to 40 CFR Part 63, Subpart YYYYY, the Permittee shall comply with the following provisions of 40 CFR 63, Subpart YYYYY (included as Attachment C to this permit), for the electric arc furnace steelmaking facilities:

(1) 40 CFR 63.10680(a), (b)(1), (c) and (d)
(2) 40 CFR 63.10681(a)
(3) 40 CFR 63.10685
(4) 40 CFR 63.10686(a), (b), (d)(1) – (d)(4), (d)(6)
(5) 40 CFR 63.10690
(6) 40 CFR 63.10692
(7) Table 1 to 40 CFR 63, Subpart YYYYY

SECTION D.2FACILITY OPERATION CONDITIONS (LADLE METALLURGICAL STATIONS)

Emission Unit Description:

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in 2012 for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

(a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.

(b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.

(c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

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

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

D.2.1 Particulate (PM/PM-10) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM**/**PM-10 emissions from the ladle metallurgical stations (LMS) and stir stations shall be captured by a side draft hood and exhausted to the LMF baghouse to Stack 61.

(b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM**/**PM-10 filterable emissions from the LMF Stack 61 shall not exceed 0.0032 grains per dry standard cubic foot and 5.49 pounds per hour.

D.2.2 Nitrogen Oxides (NOx) Limitations- Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the NOx emissions from the LMF Stack 61 shall not exceed 0.025 pounds per ton of steel produced and 10 pounds of NOx emissions per hour.

D.2.3 Carbon Monoxide (CO) Limitations- Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), CO emissions from LMF Stack 61 shall not exceed 0.1 pounds per ton of steel produced and 40 pounds of CO per hour.

D.2.4 VOC Minor Limitations [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998, and Significant Permit Modification No. 033-28134-00043, VOC emissions from the LMF Stack 61 shall not exceed 0.0082 pounds per ton of steel produced and 3.28 pounds of VOC per hour.

Compliance with these emission limits will ensure that the VOC emissions from CP 033-9187-00043 are less than forty (40) tons per year and therefore will render the requirements of 326 IAC 2-2 not applicable to CP 033-9187-00043 for VOC.

D.2.5 Visible Emission Limitations - Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), visible emissions from the LMF baghouse Stack 61 shall not

exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the LMF and the associated control devices. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.2.1- Particulate (PM/PM-10) Limitations – Best Available Control Technology, the Permittee shall perform PM/PM10 testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(b) In order to demonstrate compliance with Condition D.2.2 - Nitrogen Oxide (NOx) Limitations - Best Available Control Technology, the Permittee shall perform NOx testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(c) In order to demonstrate compliance with Conditions D.2.3 - Carbon Monoxide (CO) Limitations - Best Available Control Technology, the Permittee shall perform CO testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(d) In order to demonstrate compliance with Condition D.2.4 – VOC Minor Limitations, the Permittee shall perform VOC testing on the LMF Stack 61, utilizing testing methods approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(e) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.8 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.2.8 Particulate Control [326 IAC 2-7-6(6)]

(a) The LMF baghouse shall be operated at all times when the LMSs are in operation.

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

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

D.2.9 Visible Emission Notations [40 CFR 64]

(a) Visible emission notations of the LMF Baghouse Stack 61 exhaust, shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.10 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the LMF at least once per day when the LMF is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 2.0 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Condition C.11 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

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

D.2.11 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.9 - Visible Emission Notations, the Permittee shall maintain records of visible emission notations of the LMF Stack 61 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) To document the compliance status with Condition D.2.10 - Parametric Monitoring, the Permittee shall maintain records of the pressure drop during normal operation. 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) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3 FACILITY OPERATION CONDITIONS

Emission Unit Description:

Hot Mill Operations – Tunnel Furnaces

(a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NOx burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.

(b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NOx burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

(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 Nitrogen Oxides (NOx) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 1 shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.17 pounds per MMBtu and 20.0 pounds per hour through Stack 2.

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 2 heating zone shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.10 pounds per MMBtu and 9.2 pounds per hour through Stack 42.

D.3.2 Visible Emissions Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel furnace No. 1 (Stack 2), shall not exceed five percent (5%). The opacity shall be determined by 40 CFR 60, Appendix A, Method 9.

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel Furnace No. 2 (Stack 42), shall not exceed three percent (3%) opacity based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the Tunnel Furnace No. 1 and Tunnel Furnace No.2 natural gas fired burners. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION D.4 FACILITY OPERATION CONDITIONS (PICKLE LINE)

Emission Unit Description:

Cold Mill Operations - Pickling Line

One (1) pickling line, with a nominal capacity of 1.4 million ton per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.

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

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

D.4.1 Particulate Matter Emissions Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the pickle line particulate matter emissions shall be controlled by a scrubber with mist eliminator and the filterable particulate matter emissions from Stack 17 shall not exceed 1.23 pounds per hour. The scrubber with mist eliminator shall be operated at all times when the pickle line is in operation.

D.4.2 Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation [40 CFR 63.1]

Pursuant to CP 033-5625-00043, issued August 8, 1996, and to ensure the Permittee meets the definition of an area source under 40 CF R 63.2, the hydrochloric acid mist from the pickle line shall be controlled by a scrubber with mist eliminator. Emissions shall not exceed 0.32 pounds per hour. The scrubber and mist eliminator shall be operated at all times when the pickle line is in operation.

Compliance with this limit and the potential to emit from all other units, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the pickle line, scrubber and mist eliminator. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.4.2 - Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation, the Permittee shall perform a hydrochloric acid test on the pickle line Stack 17, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.8 - Performance Testing contains the Permittee's obligation 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.4.5 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall record the flow rate of the packed scrubber used in conjunction with the Pickling Line, at least once per day when the Pickling Line is in operation

(b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Condition D.4.2 - Hydrochloric Acid (HCL) Pickling HAP Minor Emission Limitation.

(c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest compliant stack test.

(d) When for any one reading, the flow rate falls below the above mentioned minimum, the Permittee shall take a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.6 Scrubber Failure Detection

In the event, a scrubber failure has been observed:

For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately upon removal of the coil from the process 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 (Condition B.11 - Emergency Provisions).

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

D.4.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.5 - Parametric Monitoring, the Permittee shall maintain records of the once per day pickle line scrubber flow rate reading. The Permittee shall include in its daily record when a flow rate reading is not taken and the reason for the lack of a flow rate reading (e.g. the process did not operate that day).

(b) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.5FACILITY OPERATION CONDITIONS (PICKLE LINE SCALE BREAKER)

Emission Unit Description:

Pickle Line Scale Breaker

One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

(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 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to 326 IAC 2-2 BACT, the pickle line scale breaker particulate matter PM/PM10 emissions shall be controlled by a baghouse with an outlet grain loading of 0.003 gr/dscf and PM/PM10 emissions shall not exceed 1.19 lb/hr.

D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the scale breaker and baghouse. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.5.3 Particulate Control

The scale breaker baghouse shall be in operation at all times the scale breaker is in operation.

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

D.5.4 Visible Emission Notations [40 CFR 64]

(a) Visible emission notations of the pickle line scale breaker Stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.5.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.5.4 - Visible Emission Notations, the Permittee shall maintain records of the once per day visible emission notations. 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) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.6 FACILITY OPERATION CONDITIONS (PICKLE LINE BOILERS)

Emission Unit Description:

Pickle Line Boilers

Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.

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

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

D.6.1 Nitrogen Oxides (NOx) Limitations – Best Available Control Technology (BACT) [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2 (BACT), only two of the three boilers Nos. 1, 2 and 3, shall be utilized at any time.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the pickle line boilers shall not exceed 81 pounds per million cubic feet (MMCF) of gas burned.

D.6.2 Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

Emission Unit	Unit ID	Pt (lb/MMBtu)
Pickle Line Boiler	No. 1	0.40
Pickle Line Boiler	No. 2	0.40
Pickle Line Boiler	No. 3	0.40

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the pickle line boilers. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

D.6.4 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

D.6.5 Small industrial Boilers, Commercial-Institutional Steam Generating Boilers NSPS [40 CFR 60, Subpart Dc][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR 60, Subpart Dc, which are incorporated by reference in 326 IAC 12 (included as Attachment D to this permit), for the above listed emissions units as specified as follows.

(1) 40 CFR 60.40c (a)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c (a)(1 - 3), (g), (i)

SECTION D.7 FACILITY OPERATION CONDITIONS (REVERSING MILL)

Emission Unit Description:

Reversing Mill

One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.

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

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

D.7.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the filterable particulate matter emissions from the cold reversing mill shall be controlled by a mist eliminator. Particulate matter emissions from Stack 18 shall not exceed 7.2 pounds per hour.

Compliance Determination Requirements

D.7.2 Particulate Control

The reversing mill mist eliminator shall be in operation at all times the reversing mill is in operation.

SECTION D.8 FACILITY OPERATION CONDITIONS (GALVANIZING LINE)

Emission Unit Description:

Galvanizing Lines

(a) One (1) hot band galvanizing line with a nominal capacity of 400,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 45 MMBtu per hour, exhausting through Stack 19.

(b) Twenty-four (24), natural gas fired radiant tube heaters associated with the galvanizing line, permitted in 2002 for construction. Each heater has a nominal heat input of 0.3 MMBtu per hour, exhausting inside the building.

(c) One (1) cold rolled galvanizing line with a nominal capacity of 300,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 55 MMBtu per hour, exhausting to Stack 19.

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

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

D.8.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band and cold roll galvanizing lines heaters shall burn natural gas only.

D.8.2 Nitrogen Oxides (NOx) - Best Available Control Technology (BACT) [326 IAC 2-2]

(a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the hot band galvanizing line heater shall not exceed 200 pounds per MMCF of natural gas burned.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band galvanizing line heater shall use low-NOx burners.

(c) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the cold roll galvanizing line heater shall not exceed 200 pounds per MMCF of natural gas burned.

(d) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the cold roll galvanizing line heater shall use low-NOx burners.

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the hot band line and cold roll line heaters and low NOx burners. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION D.9 FACILITY OPERATION CONDITIONS (ANNEALING)

Emission Unit Description:

Annealing Furnaces

Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

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

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

D.9.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall burn natural gas only.

D.9.2 Nitrogen Oxides (NOx) - Best Available Control Technology (BACT) [326 IAC 2-2]

(a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the annealing furnaces shall not exceed 200 pounds per MMCF of natural gas burned.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall be equipped with low-NOx burners.

SECTION D.10 FACILITY OPERATION CONDITIONS (PAINT LINE)

Emission Unit Description:

Paint Line (Coil Coating Line)

(a) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

(b) Two (2) curing ovens, permitted in 2002 for construction, with a combined nominal heat input capacity of 16 MMBtu per hour using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

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

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

D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit [326 IAC 2-2][40 CFR 63.1]

Pursuant to SSM 033-15836-00043, issued December 31, 2002, to maintain the minor status for this modification, the VOC emissions shall be limited as follows:

(a) For the 2-side, 2-coat, coil-coating line the input of VOC shall be limited to less than 3894 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.

(b) The combined heat input rate for the two curing ovens shall not exceed 140,160 million Btu per twelve (12) consecutive month period and for the thermal oxidizer shall not exceed 525,600 million Btu per twelve (12) consecutive month period.

(c) The thermal oxidizer controlling the 2-side, 2-coat, coil-coating line shall be in operation and achieve 99% overall VOC control at all times the 2-side, 2-coat, coil-coating line is in operation.

(d) Compliance with items (a), (b), and (c) combined, limits the VOC emissions from the 2-side, 2-coat coil coating line modification to less than forty (40) tons per 12 consecutive months period, with the compliance status demonstrated at the end of each month and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD)) not applicable to this modification.

(e) Pursuant to PSD SSM 033-23028-00043, issued October 26, 2007:

(1) The single HAP emissions from the coil coating line shall be limited to less than 10 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.

(2) The combined HAP emissions from the coil coating line shall be limited to less than 14.6 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

(3) The thermal oxidizer for the coil coating line shall be in operation whenever the coating line is in operation.

Compliance with these limits and requirements, in conjunction with HAP limits on SDI - IDD's rotary hearth furnace, SDI-IDD's RHF Fugitives Baghouse, SDI - IDD's submerged

arc furnace, SDI - IDD Unit S79, SDI - Flat Roll Division's pickle line, and the potential to emit from all other units, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

D.10.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-4]

(a) Pursuant to SSM 033-15836-00043, issued December 21, 2002 and 326 IAC 8-2-4 (Coil Coating Operations), the volatile organic compound (VOC) discharge to the atmosphere shall be limited to 2.6 pounds VOC per gallon of coating less water delivered to the coating applicator from prime and topcoat or single coat operations.

(b) Pursuant to 326 IAC 8-1-2 (b), the coil coating line VOC emissions shall be limited to no greater than the equivalent emissions, 4.02 pounds of VOC per gallon of coating solids, allowed in (a).

The equivalency emissions are determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

L	=	Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating.
D	=	Density of VOC in coating in pounds per gallon of VOC.
E	=	Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine the compliance status of the coil coating operation using the compliance methods in 326 IAC 8-1-2 (a).

(c) Pursuant to 326 IAC 8-1-2(c) the overall control efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency of 46.04% calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V	=	The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
E	=	Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
O	=	Equivalent overall efficiency of the capture system and control device as a percentage.

D.10.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the thermal oxidizer associated with the coil coating operation. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.10.4 Permanent Total Enclosure

In order to maintain the minor status for the 2-side, 2-coat, coil coating line, the Permittee shall use a permanent total enclosure:

(a) The capture system for the 2-side, 2-coat, coil coating line shall meet the criteria for a Permanent Total Enclosure as described in 40 CFR 51, Method 204.

-or-

(b) Verify 100% capture through other methods as approved by the Commissioner.

D.10.5 Thermal Oxidizer

(a) The thermal oxidizer shall operate with a control efficiency of not less than 99% at all times that the 2-side, 2-coat, coil coating line is in operation. This efficiency is necessary to ensure compliance with conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

(b) In order to demonstrate compliance with Condition D.10.2 - Volatile Organic Compounds (VOC), the thermal oxidizer shall be in operation and control emissions from the 2-side, 2-coat, coil coating line at all times that the 2-side, 2-coat, coil coating line is in operation.

D.10.6 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1),(6)]

(a) In order to demonstrate compliance with Conditions D.10.1- Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC), the Permittee shall perform VOC emissions and thermal oxidizer control efficiency testing utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) The Permittee shall determine the hourly average temperature and duct pressure or fan amperage for the thermal oxidizer from the most recent valid stack test that demonstrates compliance with the limits in conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC) as approved by IDEM.

(c) In order to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, within 180 days of the end of the month in which it is determined that VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period, the Permittee shall perform inlet and outlet HAP testing on the thermal oxidizer controlling emissions from the coil coating line (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP used at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test shall be conducted within 5 years from the date of the last valid compliance demonstration (Step #2). If within 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If within 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2.

(d) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.8 - Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

D.10.7 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

(a) The compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be demonstrated at the end of each

month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

VOC emitted = [(VOC input) x (100% – Percent Overall control efficiency of thermal oxidizer)]

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) If VOC emissions from the 2-side, 2-coat coil line exceed nine (9) tons for any twelve consecutive month period, or the Permittee chooses to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

HAP emitted = [(HAP input) x (100% - Percent Overall control efficiency of thermal oxidizer)]

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

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

D.10.8 Thermal Oxidizer [40 CFR 64]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer to continuously record the combustion temperature of any effluent gases incinerated to achieve compliance with D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC). This system shall have an accuracy of ±2.5^{o}C or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater.

(b) The Permittee shall record all periods (during actual coating operations) in excess of 3 hours during which the 3-hour average temperature in the thermal oxidizer used to control VOC emissions from an affected facility remains more than 28°C (50°F) below the temperature at which compliance with limit in D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit-and D.10.2 - Volatile Organic Compounds (VOC) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by D.10.6 - Testing Requirements.

(c) The Permittee shall observe the duct pressure or fan amperage at least once per day when the thermal oxidizer is in operation. The duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.

(d) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP), as approved by IDEM.

(e) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

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

D.10.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on a monthly basis.

Records may include, for example, purchase orders, invoices, and material safety data sheets (MSDS) or any other information necessary to verify the type and amount used.

(3) The total VOC usage for each month.

(b) To document the compliance status with Conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.8 - Thermal Oxidizer, the Permittee shall maintain records in accordance with (1) through (2) below.

(1) The continuous temperature records (on a three hour average basis) for the thermal oxidizer and the average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its continuous record when a temperature is not taken and the reason for the lack of a temperature recording (e.g. the process was not in operation).

(2) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or amperage reading is not taken and the reason for the lack of pressure or amperage reading (e.g. the process did not operate that day).

(c) If VOC emissions from the 2-side, 2-coat coil coating line equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee shall determine the compliance status with the HAP limits in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

(1) The amount and HAP content of each coating material and solvent used each month. Records may include, for example, inventory records and Material Safety Data Sheets (MSDS) necessary to verify the type and amount used.

(2) The single and combined HAP usage for each month.

(3) The weight of the single and combined HAPs emitted for each compliance period.

(d) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.10.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.10.1-Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Condition C.18 - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

D.10.11 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart TT.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

D.10.12 Metal Coil Surface Coating NSPS [40 CFR 60, Subpart TT][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart TT, the Permittee shall comply with the provisions of 40 CFR 60, Subpart TT, which are incorporated by reference as 326 IAC 12 (included as Attachment E of this permit), for the above listed emissions units as specified as follows:

(1) 40 CFR 60.460
(2) 40 CFR 60.461
(3) 40 CFR 60.462 (a)(2), (a)(3)
(4) 40 CFR 60.463 (a), (b), (c)(2)
(5) 40 CFR 60.464 (a), (c)
(6) 40 CFR 60.465
(7) 40 CFR 60.466 (a - c)

SECTION D.11 FACILITY OPERATION CONDITIONS (SLAG PROCESSING)

Emission Unit Description:

A Slag Handling Operation owned and operated by Edward C. Levy Company - Butler Mill Service.

(a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;

(b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(e) One (1) 30" conveyor (#6), with a nominal capacity of 100 tons per hour, permitted in 1994 for construction;

(f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;

(k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;

(l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;

(o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;

(p) One (1) jaw crusher, with a nominal capacity of 100 tons per hour, permitted in 2003 for construction, and

(q) Aggregate Storage Piles.

(r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from the slag handling operations are controlled as needed by water sprays.

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

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

D.11.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]

(a) Pursuant to CP 033-3692-00043 issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from slag processing by at least 95 percent (95%) based on a filterable PM10 emission basis.

(b) Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from storage piles by eighty percent (80%).

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

D.11.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.11.1 - Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures applied to the slag handling and storage piles, as specified in the Fugitive Dust Control Plan.

(b) Condition C.17- General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.12 FACILITY OPERATIONS CONDITIONS (FUGITIVE DUST)

Emission Unit Description:

Fugitive Dust Sources consisting of but not limited to the following:

(a) Paved roads,

(b) Parking areas,

(c) Unpaved roads and

(d) Traveled open areas.

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

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

D.12.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]

Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from the paved roads, parking lots, unpaved roads, and traveled open areas by eighty percent (80%).

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

D.12.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.12.1 - Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures (dust suppressants, water sprays and vacuum/sweeping of paved areas) used as specified in the Fugitive Dust Control Plan.

(b) Condition C.17 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.13 FACILITY OPERATION CONDITIONS

Emission Unit Description:

Emergency Generators

(a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

Insignificant Activities

(b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower. [40 CFR 63, Subpart ZZZZ]

(1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw. [40 CFR 60, Subpart IIII]

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

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

D.13.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.6565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the above listed emissions units, as specified in 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR Part 63, Subpart ZZZZ.

D.13.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ] [326 IAC 20-82]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 (included as Attachment F to this permit), for the above listed emissions units, as specified as follows.

(1) 40 CFR 63.6585 (a), (c)
(2) 40 CFR 63.6590 (a)(1)(iii), (a)(2)(iii), (c)(1)
(3) 40 CFR 63.6595 (a)(1), (c)
(4) 40 CFR 63.6603 (a)
(5) 40 CFR 63.6604 (b)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625 (e)(3), (f), (h), (i)
(8) 40 CFR 63.6640 (a), (b), (e), (f)(1), (f)(2), f(4)
(9) 40 CFR 63.6645 (a)(5)
(10) 40 CFR 63.6650 (a), (h)
(11) 40 CFR 63.6655 (a), (d), (e)(2), (f)
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6675
(15) Table 2d to 40 CFR 63, Subpart ZZZZ (item 4)
(16) Table 6 to 40 CFR 63, Subpart ZZZZ (item 4)
(17) Table 7 to 40 CFR 63, Subpart ZZZZ (item 9)
(18) Table 8 to 40 CFR 63, Subpart ZZZZ

D.13.3 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, for the emergency diesel generator, identified as Melt Shop (Door 26), except as otherwise specified in 40 CFR 60, Subpart IIII.

D.13.4 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart IIII] [326 IAC 12]

Pursuant to 40 CFR 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, (included as Attachment G of this permit) for the emergency diesel generator, identified as Melt Shop (Door 26):

(1) 40 CFR 60.4200 (a)(2)(i), (a)(4)
(2) 40 CFR 60.4205 (b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207 (a), (b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209 (a)
(7) 40 CFR 60.4211 (a), (c), (f)
(8) 40 CFR 60.4218
(9) 40 CFR 60.4219
(10) Table 8

SECTION D.14 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.[326 IAC 6-2-4]

(1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

(The information describing the processes 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.14.1 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each natural gas-fired heating unit shall be limited to 0.6 pounds per MMBtu heat input.

SECTION D.15 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(c) 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. This facility includes the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

(The information describing the processes 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.15.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

In order to render the requirements of 326 IAC 8-4-6 not applicable for the Gasoline Storage Tanks #2 and #3 (or T2 and T3), the Permittee shall comply with the following:

(a) The monthly gasoline throughput from the Gasoline Storage Tank #2 (or T2) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

(b) The monthly gasoline throughput from the Gasoline Storage Tank #3 (or T3) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities) not applicable.

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

D.15.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.13.2 - Volatile Organic Compounds (VOC), the Permittee shall maintain records of the monthly gasoline throughput from Gasoline Storage Tanks #2 and #3 (or T2 and T3).

(b) Condition C.17 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.15.3 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.11130, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the above listed emissions units except as specified in 40 CFR Part 63, Subpart CCCCCC in accordance with the schedule in 40 CFR 63, Subpart CCCCCC.

D.15.4 Source Category: Gasoline Dispensing Facilities NESHAP [40 CFR 63, Subpart CCCCCC]

Pursuant to 40 CFR Part 63, Subpart CCCCCC, the Permittee shall comply with the provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment H of this permit), for the above listed emissions units, as specified below:

(1) 40 CFR 63.11111 (a), (b), (e), (h), (i)
(2) 40 CFR 63.11112 (a), (d)

(3) 40 CFR 63.11113 (b)
(4) 40 CFR 63.11115
(5) 40 CFR 63.11116
(6) 40 CFR 63.11125 (d)
(7) 40 CFR 63.11130
(8) 40 CFR 63.11132
(9) Table 3

SECTION D.16 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]

(1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.

(2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

(The information describing the processes 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.16.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission pound per hour limitation from the insignificant activities listed in this section shall be calculated using the following equation:

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

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

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

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

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Rd 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

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: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Rd 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

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

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

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

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

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

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

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Rd 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. 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 AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: single HAP emission
Limits: Less than 10 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: combination of HAP emissions
Limits: 14.60 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

QUARTERLY REPORT

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: VOC usage for the coil coating line (paint line)
Limits: 3894 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: combination of HAP emissions
Limits: less than twenty-five (25) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: chromium emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

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

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: manganese emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

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: _____

Fugitive Dust Control Plan

Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division
4500 County Road 59
Butler, Indiana

Section 1 – Introduction

The following control plan, when implemented, is designed to reduce uncontrolled fugitive dust based on PM10 mass emissions basis from paved roadways and parking lots, unpaved roadways and traveled open areas, storage piles, and slag processing operations.

The plan shall be implemented on a year-round basis until such time as another plan is approved or ordered by the Indiana Department of Environmental Management.

Section 2 – Paved Roads and Parking Lots

Except as provided below, paved roads and parking lots shall be controlled by the use of a vehicular vacuum sweeper or by water application and shall be performed at least once every 14 day period. Upon request of the Assistant Commissioner, Steel Dynamics, Inc. - Flat Roll Division shall sample and provide to IDEM surface material silt content and surface dust loadings in accordance with field and laboratory procedures provided in the document: C. Cowherd, Jr. et. al., Iron and Steel Plat Open Dust Source Fugitive Emission Evaluation, PE-600/2-79-103, U.S. Environmental Protection Agency, *Cincinnati*, OH, May 1979.. IDEM will have the right to specify road segments to be sampled.

The period listed above for cleaning of the paved road segments and parking lots may be extended by one day for each time:

(a) 0.1 or more inches of rain has accumulated during the 24-hour period prior to the scheduled cleaning.
(b) It is raining at the time of the scheduled cleaning.
(c) It is below freezing at the time of the scheduled cleaning.

Section 3 – Unpaved Roads

The following dust control measures shall be performed on the unpaved maintenance roads outside of the slag processing area such that the emission reduction requirements in the permit are met. All unpaved roads shall be treated with an EPA-approved dust suppressant in order to meet compliance with the associated emission reduction requirements. As an alternative, Steel Dynamics, Inc. - Flat Roll Division may pave previously unpaved road sections and apply paved road cleaning measures to these newly pave roads at frequencies similar to existing paved roads in the immediate area.

Treating of unpaved road segments may be delayed by one day when:

(a) 0.1 or more inches of rain have accumulated during the 24-hour period prior to the scheduled treatment.

(b) Road segments are saturated with water such that chemical dust suppressants cannot be accepted by the surface.

(c) Road segments are frozen or covered by ice, snow or standing water.

(d) The road segment or area is closed or abandoned. Abandoned roads will be barricaded.

(e) It is raining on the day of the scheduled treatment.

(f) The ambient air temperature is below or forecasted to be below 32 F.

Section 4 – Open Aggregate Piles

Open aggregate piles consist of slag in various stages of processing. To maintain product quality and chemical stability, watering the stockpiles shall be the primary means of dust control. Water must be limited as to keep the moisture content of the product within standards.

Wind erosion – When visible emissions exceed 5 percent opacity over a 3-minute average from any piles, the affected piles shall be sprayed as required by water to eliminate wind erosion. Water added to the product during processing provides added procedures specified in Section 7.

Section 5 – Slag Processing

Emissions from slag processing operations shall be controlled through the application of water. Visible emissions shall not exceed 10% by Method 9, 6-minute average evident from any batch drop, continuous drop, screening or crushing operation.

Section 6 – Material Spill control

Incidents of material spillage leading to visible fugitive dust shall be properly cleaned up.

Section 7 – Unpaved Roadway and Unpaved Area Opacity Limits

Visible emissions from any unpaved road segment or unpaved area shall not exceed 5 percent opacity as averaged over any consecutive 3-minute period. All visible emission observations shall be determined in accordance with 40 CFR 60 Appendix A Method 9, except as otherwise provided below:

(a) In viewing fugitive emissions generated by vehicular traffic, the observer shall be positioned in accordance with the provisions of paragraph 2.1 of Method 9 except that the observer need not position himself with his back to the sun.

(b) The observer shall begin reading when a vehicle crosses his line of sight which shall be approximately perpendicular to the trajectory of that vehicle. The observer shall continue to observe and record visible emission opacities at 15-second intervals along that same line of sight until no less than twelve consecutive opacity readings have been obtained.

Attachment B
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on May 30, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

40 CFR 60, Subpart AAa—Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983

Source: 49 FR 43845, Oct. 31, 1984, unless otherwise noted.

§ 60.270a Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces, argon-oxygen decarburization vessels, and dust-handling systems.

(b) The provisions of this subpart apply to each affected facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after August 17, 1983.

§ 60.271a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Argon-oxygen decarburization vessel (AOD vessel) means any closed-bottom, refractory-lined converter vessel with submerged tuyeres through which gaseous mixtures containing argon and oxygen or nitrogen may be blown into molten steel for further refining.

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 conditions that result in increases in particulate loadings. 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.

Capture system means the equipment (including ducts, hoods, fans, dampers, etc.) used to capture or transport particulate matter generated by an electric arc furnace or AOD vessel to the air pollution control device.

Charge means the addition of iron and steel scrap or other materials into the top of an electric arc furnace or the addition of molten steel or other materials into the top of an AOD vessel.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by an electric arc furnace or AOD vessel.

Direct-shell evacuation control system (DEC system) means a system that maintains a negative pressure within the electric arc furnace above the slag or metal and ducts emissions to the control device.

Dust-handling system means equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.

Electric arc furnace (EAF) means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes. For the purposes of this subpart, an EAF shall consist of the furnace shell and roof and the transformer. Furnaces that continuously feed direct-reduced iron ore pellets as the primary source of iron are not affected facilities within the scope of this definition.

Heat cycle means the period beginning when scrap is charged to an empty EAF and ending when the EAF tap is completed or beginning when molten steel is charged to an empty AOD vessel and ending when the AOD vessel tap is completed.

Meltdown and refining period means the time period commencing at the termination of the initial charging period and ending at the initiation of the tapping period, excluding any intermediate charging periods and times when power to the EAF is off.

Melting means that phase of steel production cycle during which the iron and steel scrap is heated to the molten state.

Negative-pressure fabric filter means a fabric filter with the fans on the downstream side of the filter bags.

Positive-pressure fabric filter means a fabric filter with the fans on the upstream side of the filter bags.

Refining means that phase of the steel production cycle during which undesirable elements are removed from the molten steel and alloys are added to reach the final metal chemistry.

Shop means the building which houses one or more EAF's or AOD vessels.

Shop opacity means the arithmetic average of 24 observations of the opacity of emissions from the shop taken in accordance with Method 9 of appendix A of this part.

Tap means the pouring of molten steel from an EAF or AOD vessel.

Tapping period means the time period commencing at the moment an EAF begins to pour molten steel and ending either three minutes after steel ceases to flow from an EAF, or six minutes after steel begins to flow, whichever is longer.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10110, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§ 60.272a Standard for particulate matter.

(a) On and after the date of which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an EAF or an AOD vessel any gases which:

(1) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);

(2) Exit from a control device and exhibit 3 percent opacity or greater; and

(3) Exit from a shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater.

§ 60.273a Emission monitoring.

(a) Except as provided under paragraphs (b) and (c) of this section, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of this subpart.

(b) No continuous monitoring system shall be required on any control device serving the dust-handling system.

(c) A continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) is not required on any modular, multi-stack, negative-pressure or positive-pressure fabric filter if observations of the opacity of the visible emissions from the control device are performed by a certified visible emission observer; or on any single-stack fabric filter if visible emissions from the control device are performed by a certified visible emission observer and the owner installs and continuously operates a bag leak detection system according to paragraph (e) of this section. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in § 60.272a(a).

(d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

(e) A bag leak detection system must be installed and continuously operated on all single-stack fabric filters if the owner or operator elects not to install and operate a continuous opacity monitoring system as provided for under paragraph (c) of this section. In addition, the owner or operator shall meet the visible emissions observation requirements in paragraph (c) of this section. The bag leak detection system must meet the specifications and requirements of paragraphs (e)(1) through (8) of this section.

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 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 bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (e)(4) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) For each bag leak detection system required by paragraph (e) of this section, the owner or operator shall develop and submit to the Administrator or delegated authority, for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of this paragraph (e)(4). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall 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). 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 shall describe the following:

(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; and

(v) How the bag leak detection system output shall be recorded and stored.

(5) The initial adjustment of the system shall, at a 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).

(6) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided for in paragraphs (e)(6)(i) and (ii) of this section.

(i) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraphs (e)(4) of this section.

(ii) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under paragraph (c) of this section and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(f) For each bag leak detection system installed according to paragraph (e) of this section, the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under paragraph (g) of this section, the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

(1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;

(2) Sealing off defective bags or filter media;

(3) Replacing defective bags or filter media or otherwise repairing the control device;

(4) Sealing off a defective baghouse compartment;

(5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and

(6) Shutting down the process producing the particulate emissions.

(g) In approving the site-specific monitoring plan required in paragraph (e)(4) of this section, the Administrator or delegated authority may allow owners or operators more than 3 hours to alleviate specific conditions that cause an alarm if the owner or operator identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and

demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6672, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§ 60.274a Monitoring of operations.

(a) The owner or operator subject to the provisions of this subpart shall maintain records of the following information:

(1) All data obtained under paragraph (b) of this section; and

(2) All monthly operational status inspections performed under paragraph (c) of this section.

(b) Except as provided under paragraph (e) of this section, the owner or operator subject to the provisions of this subpart shall check and record on a once-per-shift basis the furnace static pressure (if DEC system is in use, and a furnace static pressure gauge is installed according to paragraph (f) of this section) and either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Administrator may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of appendix A of this part.

(c) When the owner or operator of an affected facility is required to demonstrate compliance with the standards under § 60.272a(a)(3) and at any other time that the Administrator may require (under section 114 of the CAA, as amended) either: the control system fan motor amperes and all damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to paragraph (b) of this section. The owner or operator may petition the Administrator for reestablishment of these parameters whenever the owner or operator can demonstrate to the Administrator's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of § 60.276a(c).

(d) Except as provided under paragraph (e) of this section, the owner or operator shall perform monthly operational status 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 shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

(e) The owner or operator may petition the Administrator to approve any alternative to either the monitoring requirements specified in paragraph (b) of this section or the monthly operational status inspections specified in paragraph (d) of this section if the alternative will provide a continuous record of operation of each emission capture system.

(f) Except as provided for under § 60.273a(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

(g) Except as provided for under § 60.273a(d), when the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under § 60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under paragraph (f) of this section. The owner or operator may petition the Administrator for reestablishment of the pressure whenever the owner or operator can demonstrate to the Administrator's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility.

(h) During any performance test required under § 60.8, and for any report thereof required by § 60.276a(f) of this subpart, or to determine compliance with § 60.272a(a)(3) of this subpart, the owner or operator shall monitor the following information for all heats covered by the test:

(1) Charge weights and materials, and tap weights and materials;

(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;

(3) Control device operation log; and

(4) Continuous opacity monitor or Method 9 data.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]

§ 60.275a Test methods and procedures.

(a) During performance tests required in § 60.8, the owner or operator shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions.

(b) When emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator shall use either or both of the following procedures during a performance test (see also § 60.276a(e)):

(1) Determine compliance using the combined emissions.

(2) Use a method that is acceptable to the Administrator and that compensates for the emissions from the facilities not subject to the provisions of this subpart.

(c) When emission from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, the owner or operator shall demonstrate compliance with § 60.272(a)(3) based on emissions from only the affected facility(ies).

(d) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(e) The owner or operator shall determine compliance with the particulate matter standards in § 60.272a as follows:

(1) Method 5 shall be used for negative-pressure fabric filters and other types of control devices and Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats.

(2) When more than one control device serves the EAF(s) being tested, the concentration of particulate matter shall be determined using the following equation:

$$c_{st} = \left[\sum_{i=1}^{n} \left(c_{si} \, Q_{sdi} \right) \right] \sum_{i=1}^{n} Q_{sdi}$$

where:

c_{st} =average concentration of particulate matter, mg/dscm (gr/dscf).

c_{si} =concentration of particulate matter from control device “i”, mg/dscm (gr/dscf).

n=total number of control devices tested.

Q_{sdi} =volumetric flow rate of stack gas from control device “i”, dscm/hr (dscf/hr).

(3) Method 9 and the procedures of § 60.11 shall be used to determine opacity.

(4) To demonstrate compliance with § 60.272a(a) (1), (2), and (3), the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.

(f) To comply with § 60.274a (c), (f), (g), and (h), the owner or operator shall obtain the information required in these paragraphs during the particulate matter runs.

(g) Any control device subject to the provisions of the subpart shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures.

(h) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator may use any of the following procedures during a performance test:

(1) Base compliance on control of the combined emissions;

(2) Utilize a method acceptable to the Administrator that compensates for the emissions from the facilities not subject to the provisions of this subpart, or;

(3) Any combination of the criteria of paragraphs (h)(1) and (h)(2) of this section.

(i) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, determinations of compliance with § 60.272a(a)(3) will only be based upon emissions originating from the affected facility(ies).

(j) Unless the presence of inclement weather makes concurrent testing infeasible, the owner or operator shall conduct concurrently the performance tests required under § 60.8 to demonstrate compliance with § 60.272a(a) (1), (2), and (3) of this subpart.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 65 FR 61758, Oct. 17, 2000]

§ 60.276a Recordkeeping and reporting requirements.

(a) Records of the measurements required in § 60.274a must be retained for at least 2 years following the date of the measurement.

(b) Each owner or operator shall submit a written report of exceedances of the control device opacity to the Administrator semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.

(c) Operation at a furnace static pressure that exceeds the value established under § 60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under § 60.274a(c) or operation at flow rates lower than those established under § 60.274a(c) may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Administrator semiannually.

(d) The requirements of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.

(e) When the owner or operator of an EAF or AOD is required to demonstrate compliance with the standard under § 60.275 (b)(2) or a combination of (b)(1) and (b)(2) the owner or operator shall obtain approval from the Administrator of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.

(f) For the purpose of this subpart, the owner or operator shall conduct the demonstration of compliance with § 60.272a(a) of this subpart and furnish the Administrator a written report of the results of the test. This report shall include the following information:

(1) Facility name and address;

(2) Plant representative;

(3) Make and model of process, control device, and continuous monitoring equipment;

(4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;

(5) Rated (design) capacity of process equipment;

(6) Those data required under § 60.274a(h) of this subpart;

(i) List of charge and tap weights and materials;

(ii) Heat times and process log;

(iii) Control device operation log; and

(iv) Continuous opacity monitor or Method 9 data.

(7) Test dates and test times;

(8) Test company;

(9) Test company representative;

(10) Test observers from outside agency;

(11) Description of test methodology used, including any deviation from standard reference methods;

(12) Schematic of sampling location;

(13) Number of sampling points;

(14) Description of sampling equipment;

(15) Listing of sampling equipment calibrations and procedures;

(16) Field and laboratory data sheets;

(17) Description of sample recovery procedures;

(18) Sampling equipment leak check results;

(19) Description of quality assurance procedures;

(20) Description of analytical procedures;

(21) Notation of sample blank corrections; and

(22) Sample emission calculations.

(g) The owner or operator shall maintain records of all shop opacity observations made in accordance with § 60.273a(d). All shop opacity observations in excess of the emission limit specified in § 60.272a(a)(3) of this subpart shall indicate a period of excess emission, and shall be reported to the administrator semi-annually, according to § 60.7(c).

(h) The owner or operator shall maintain the following records for each bag leak detection system required under § 60.273a(e):

(1) Records of the bag leak detection system output;

(2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(3) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]

Attachment C
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on May 29, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

40 CFR 63, Subpart YYYYY—National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities

Source: 72 FR 74111, Dec. 28, 2007, unless otherwise noted.

Applicability and Compliance Dates

§ 63.10680 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an electric arc furnace (EAF) steelmaking facility that is an area source of hazardous air pollutant (HAP) emissions.

(b) This subpart applies to each new or existing affected source. The affected source is each EAF steelmaking facility.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source on or before September 20, 2007.

(2) An affected source is new if you commenced construction or reconstruction of the affected source after September 20, 2007.

(c) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(d) If you own or operate an area source subject to this subpart, you must have or obtain a permit under 40 CFR part 70 or 40 CFR part 71.

§ 63.10681 What are my compliance dates?

(a) Except as provided in paragraph (b) of this section, if you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by no later than June 30, 2008.

(b) If you own or operate an existing affected source, you must achieve compliance with opacity limit in § 63.10686(b)(2) or (c)(2) by no later than December 28, 2010 if you demonstrate to the satisfaction of the permitting authority that additional time is needed to install or modify emission control equipment.

(c) If you start up a new affected source on or before December 28, 2007, you must achieve compliance with the applicable provisions of this subpart by no later than December 28, 2007.

(d) If you start up a new affected source after December 28, 2007, you must achieve compliance with the applicable provisions of this subpart upon startup of your affected source.

Standards and Compliance Requirements

§ 63.10685 What are the requirements for the control of contaminants from scrap?

(a) *Chlorinated plastics, lead, and free organic liquids* . For metallic scrap utilized in the EAF at your facility, you must comply with the requirements in either paragraph (a)(1) or (2) of this section. You may have certain scrap at your facility subject to paragraph (a)(1) of this section and other scrap subject to paragraph (a)(2) of this section provided the scrap remains segregated until charge make-up.

(1) *Pollution prevention plan* . For the production of steel other than leaded steel, you must prepare and implement a pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace. For the production of leaded steel, you must prepare and implement a pollution prevention plan for scrap selection and inspection to minimize the amount of chlorinated plastics and free organic liquids in the scrap that is charged to the furnace. You must submit the scrap pollution prevention plan to the permitting authority for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. You must keep a copy of the plan onsite, and you must provide training on the plan's requirements to all plant personnel with materials acquisition or inspection duties. Each plan must include the information in paragraphs (a)(1)(i) through (iii) of this section:

(i) Specifications that scrap materials must be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.

(ii) A requirement in your scrap specifications for removal (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel.

(iii) Procedures for determining if the requirements and specifications in paragraph (a)(1) of this section are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within specifications.

(iv) The requirements of paragraph (a)(1) of this section do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the furnace. These exempted materials must be identified in the pollution prevention plan.

(2) *Restricted metallic scrap* . For the production of steel other than leaded steel, you must not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids. For the production of leaded steel, you must not charge to the furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, chlorinated plastics, or free organic liquids. This restriction does not apply to any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, or free organic liquids. This restriction does not apply to motor vehicle scrap that is charged to recover the chromium or nickel content if you meet the requirements in paragraph (b)(3) of this section.

(b) *Mercury requirements* . For scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of this section for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in paragraph (b)(4) of this section for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.

(1) *Site-specific plan for mercury switches* . You must comply with the requirements in paragraphs (b)(1)(i) through (v) of this section.

(i) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.

(ii) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (b)(1)(i) of this section for removal of mercury switches. You must submit the plan to the permitting authority for approval. You must operate according to this plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. The permitting authority may change the approval status of the plan upon 90-days written notice based upon the semiannual compliance report or other information. The plan must include:

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from that scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;

(B) Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification;

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in paragraph (b)(1)(ii)(C) of this section).

(iii) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to your facility during the previous year and the basis for the estimate. The permitting authority may request documentation or additional information at any time.

(iv) You must establish a goal for each scrap provider to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph (b)(1) of this section may require only the removal of convenience light switch mechanisms, the permitting authority will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

(v) For each scrap provider, you must submit semiannual progress reports to the permitting authority that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (b)(1)(ii)(A) of this section. This information can be submitted in aggregated form and does not have to be submitted for each scrap provider, contract, or shipment. The permitting authority may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.

(2) *Option for approved mercury programs.* You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. The National Vehicle Mercury Switch Recovery Program and the Vehicle Switch Recovery Program mandated by Maine State law are EPA-approved programs under paragraph (b)(2) of this section unless and until the Administrator disapproves the program (in part or in whole) under paragraph (b)(2)(iii) of this section.

(i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;

(ii) The program has a goal to remove at least 80 percent of mercury switches from the motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (b)(2) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and

(iii) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.

(iv) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

(C) You must conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(3) *Option for specialty metal scrap.* You must certify in your notification of compliance status that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.

(4) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in paragraphs (b)(1) through (3) of this section, you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.

(c) *Recordkeeping and reporting requirements.* In addition to the records required by § 63.10, you must keep records to demonstrate compliance with the requirements for your pollution prevention plan in paragraph (a)(1) of this section and/or for the use of only restricted scrap in paragraph (a)(2) of this section and for mercury in paragraphs (b)(1) through (3) of this section as applicable. You must keep records documenting compliance with paragraph (b)(4) of this section for scrap that does not contain motor vehicle scrap.

(1) If you are subject to the requirements for a site-specific plan for mercury under paragraph (b)(1) of this section, you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of

mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted inspections or taken other means of corroboration as required under paragraph (b)(1)(ii)(C) of this section. You may include this information in the semiannual compliance reports required under paragraph (c)(3) of this section.

(2) If you are subject to the option for approved mercury programs under paragraph (b)(2) of this section, you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

(3) You must submit semiannual compliance reports to the Administrator for the control of contaminants from scrap according to the requirements in § 63.10(e). The report must clearly identify any deviation from the requirements in paragraphs (a) and (b) of this section and the corrective action taken. You must identify which compliance option in paragraph (b) of this section applies to each scrap provider, contract, or shipment.

§ 63.10686 What are the requirements for electric arc furnaces and argon-oxygen decarburization vessels?

(a) You must install, operate, and maintain a capture system that collects the emissions from each EAF (including charging, melting, and tapping operations) and argon-oxygen decarburization (AOD) vessel and conveys the collected emissions to a control device for the removal of particulate matter (PM).

(b) Except as provided in paragraph (c) of this section, you must not discharge or cause the discharge into the atmosphere from an EAF or AOD vessel any gases which:

(1) Exit from a control device and contain in excess of 0.0052 grains of PM per dry standard cubic foot (gr/dscf); and

(2) Exit from a melt shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

(c) If you own or operate a new or existing affected source that has a production capacity of less than 150,000 tons per year (tpy) of stainless or specialty steel (as determined by the maximum production if specified in the source's operating permit or EAF capacity and maximum number of operating hours per year), you must not discharge or cause the discharge into the atmosphere from an EAF or AOD vessel any gases which:

(1) Exit from a control device and contain particulate matter (PM) in excess of 0.8 pounds per ton (lb/ton) of steel. Alternatively, the owner or operator may elect to comply with a PM limit of 0.0052 grains per dry standard cubic foot (gr/dscf); and

(2) Exit from a melt shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

(d) Except as provided in paragraph (d)(6) of this section, you must conduct performance tests to demonstrate initial compliance with the applicable emissions limit for each emissions source subject to an emissions limit in paragraph (b) or (c) of this section.

(1) You must conduct each PM performance test for an EAF or AOD vessel according to the procedures in § 63.7 and 40 CFR 60.275a using the following test methods in 40 CFR part 60, appendices A-1, A-2, A-3, and A-4:

(i) Method 1 or 1A of appendix A-1 of 40 CFR part 60 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 of appendix A-1 of 40 CFR part 60 to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B of appendix A-3 of 40 CFR part 60 to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see § 63.14) as an alternative to EPA Method 3B.

(iv) Method 4 of appendix A-3 of 40 CFR part 60 to determine the moisture content of the stack gas.

(v) Method 5 or 5D of appendix A-3 of 40 CFR part 60 to determine the PM concentration. Three valid test runs are needed to comprise a PM performance test. For EAF, sample only when metal is being melted and refined. For AOD vessels, sample only when the operation(s) are being conducted.

(2) You must conduct each opacity test for a melt shop according to the procedures in § 63.6(h) and Method 9 of appendix A-4 of 40 CFR part 60. When emissions from any EAF or AOD vessel are combined with emissions from emission sources not subject to this subpart, you must demonstrate compliance with the melt shop opacity limit based on emissions from only the emission sources subject to this subpart.

(3) During any performance test, you must monitor and record the information specified in 40 CFR 60.274a(h) for all heats covered by the test.

(4) You must notify and receive approval from the Administrator for procedures that will be used to determine compliance for an EAF or AOD vessel when emissions are combined with those from facilities not subject to this subpart.

(5) To determine compliance with the PM emissions limit in paragraph (c) of this section for an EAF or AOD vessel in a lb/ton of steel format, compute the process-weighted mass emissions (E_p) for each test run using Equation 1 of this section:

$$E_p = \frac{C \times Q \times T}{P \times K} \qquad (\text{Eq. } 1)$$

Where:

E_p = Process-weighted mass emissions of PM, lb/ton;

C = Concentration of PM or total metal HAP, gr/dscf;

Q = Volumetric flow rate of stack gas, dscf/hr;

T = Total time during a test run that a sample is withdrawn from the stack during steel production cycle, hr;

P = Total amount of metal produced during the test run, tons; and

K = Conversion factor, 7,000 grains per pound.

(6) If you own or operate an existing affected source that is subject to the emissions limits in paragraph (b) or (c) of this section, you may certify initial compliance with the applicable emission limit for one or more emissions sources based on the results of a previous performance test for that emissions source in lieu of the requirement for an initial performance test provided that the test(s) were conducted within 5 years of the compliance date using the methods and procedures specified in paragraph (d)(1) or (2) of this section; the test(s) were for the affected facility; and the test(s) were representative of current or anticipated operating processes and conditions. Should the permitting authority deem the prior test data unacceptable to demonstrate compliance with an applicable emissions limit, the owner or operator must conduct an initial performance test within 180 days of the compliance date or within 90 days of receipt of the notification of disapproval of the prior test, whichever is later.

Other Information and Requirements

§ 63.10690 What parts of the General Provisions apply to this subpart?

(a) You must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as provided in Table 1 of this subpart.

(b) The notification of compliance status required by § 63.9(h) must include each applicable certification of compliance, signed by a responsible official, in paragraphs (b)(1) through (6) of this section.

(1) For the pollution prevention plan requirements in § 63.10685(a)(1): “This facility has submitted a pollution prevention plan for metallic scrap selection and inspection in accordance with § 63.10685(a)(1)”;

(2) For the restrictions on metallic scrap in § 63.10685(a)(2): “This facility complies with the requirements for restricted metallic scrap in accordance with § 63.10685(a)(2)”;

(3) For the mercury requirements in § 63.10685(b):

(i) “This facility has prepared a site-specific plan for mercury switches in accordance with § 63.10685(b)(1)”;

(ii) “This facility participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator in accordance with § 63.10685(b)(2)” and has prepared a plan demonstrating how the facility participates in the EPA-approved program in accordance with § 63.10685(b)(2)(iv);

(iii) “The only materials from motor vehicles in the scrap charged to an electric arc furnace at this facility are materials recovered for their specialty alloy content in accordance with § 63.10685(b)(3) which are not reasonably expected to contain mercury switches”; or

(iv) “This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with § 63.10685(b)(4).”

(4) This certification of compliance for the capture system requirements in § 63.10686(a), signed by a responsible official: “This facility operates a capture system for each electric arc furnace and argon-oxygen decarburization vessel that conveys the collected emissions to a PM control device in accordance with § 63.10686(a)”.

(5) If applicable, this certification of compliance for the performance test requirements in § 63.10686(d)(6): “This facility certifies initial compliance with the applicable emissions limit in § 63.10686(a) or (b) based on the results of a previous performance test in accordance with § 63.10686(d)(6)”.

(6) This certification of compliance for the monitoring requirements in § 63.10686(e), signed by a responsible official: “This facility has developed and submitted proposed monitoring information in accordance with 40 CFR part 64”.

§ 63.10691 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the EPA or a delegated authority such as a State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if 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 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 listed in paragraphs (c)(1) through (6) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g).

(2) Approval of an alternative opacity emissions standard under § 63.6(h)(9).

(3) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in 40 CFR 63.90.

(4) Approval of major change to monitoring under 40 CFR 63.8(f). A “major change to monitoring” is defined in 40 CFR 63.90.

(5) Approval of a major change to recordkeeping/reporting under 40 CFR 63.10(f). A “major change to recordkeeping/reporting” is defined in 40 CFR 63.90.

(6) Approval of a program for the removal of mercury switches under § 63.10685(b)(2).

§ 63.10692 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows:

Argon-oxygen decarburization (AOD) vessel means any closed-bottom, refractory-lined converter vessel with submerged tuyeres through which gaseous mixtures containing argon and oxygen or nitrogen may be blown into molten steel for further refining.

Capture system means the equipment (including ducts, hoods, fans, dampers, etc.) used to capture or transport emissions generated by an electric arc furnace or argon-oxygen decarburization vessel to the air pollution control device.

Chlorinated plastics means solid polymeric materials that contain chlorine in the polymer chain, such as polyvinyl chloride (PVC) and PVC copolymers.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by an electric arc furnace or argon-oxygen decarburization vessel.

Deviation means any instance where 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 emissions limitation or work practice standard;

(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 emissions limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Electric arc furnace (EAF) means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes. An electric arc furnace consists of the furnace shell, roof, and the transformer.

Electric arc furnace (EAF) steelmaking facility means a steel plant that produces carbon, alloy, or specialty steels using an EAF. This definition excludes EAF steelmaking facilities at steel foundries and EAF facilities used to produce nonferrous metals.

Free organic liquids means material that fails the paint filter test by EPA Method 9095B, (revision 2, dated November 1994) (incorporated by reference—see § 63.14) after accounting for water using a moisture determination test by ASTM Method D2216-05 (incorporated by reference—see § 63.14). If, after conducting a moisture determination test,

if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains *free organic liquids* .

Leaded steel means steel that must meet a minimum specification for lead content (typically 0.25 percent or more) and for which lead is a necessary alloy for that grade of steel.

Mercury switch means each mercury-containing capsule or switch assembly that is part of a convenience light switch mechanism installed in a vehicle.

Motor vehicle means an automotive vehicle not operated on rails and usually operated with rubber tires for use on highways.

Motor vehicle scrap means vehicle or automobile bodies, including automobile body hulks, that have been processed through a shredder. *Motor vehicle scrap* does not include automobile manufacturing bundles, or miscellaneous vehicle parts, such as wheels, bumpers or other components that do not contain mercury switches.

Nonferrous metals means any pure metal other than iron or any metal alloy for which an element other than iron is its major constituent by percent in weight.

Scrap provider means the person (including a broker) who contracts directly with a steel mill to provide scrap that contains motor vehicle scrap. Scrap processors such as shredder operators or vehicle dismantlers that do not sell scrap directly to a steel mill are not *scrap providers* .

Specialty steel means low carbon and high alloy steel other than stainless steel that is processed in an argon-oxygen decarburization vessel.

Stainless steel means low carbon steel that contains at least 10.5 percent chromium.

Table 1 to Subpart YYYYY of Part 63—Applicability of General Provisions to Subpart YYYYY

As required in § 63.10691(a), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table.

Citation	Subject	Applies to subpart YYYYY?	Explanation
§ 63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12), (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability	Yes	
§ 63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No	
§ 63.2	Definitions	Yes	
§ 63.3	Units and Abbreviations	Yes	
§ 63.4	Prohibited Activities and Circumvention	Yes	
§ 63.5	Preconstruction Review and Notification Requirements	Yes	
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)(iii)-(e)(3)(ix), (f), (g), (h)(1), (h)(2), (h)(5)-(h)(9), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes	
§ 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No	

Citation	Subject	Applies to subpart YYYYY?	Explanation
§ 63.7	Applicability and Performance Test Dates	Yes	
§ 63.8(a)(1), (a)(2), (b), (c), (d), (e), (f)(1)-(5), (g)	Monitoring Requirements	Yes	Requirements apply if a COMS or CEMS is used.
§ 63.8(a)(3)	[Reserved]	No	
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11	No	
§ 63.8(c)(4)	Continuous Monitoring System Requirements	Yes	Requirements apply if a COMS or CEMS is used.
§ 63.8(f)(6)	RATA Alternative	Yes	Requirements apply if a CEMS is used.
§ 63.9(a), (b)(1), (b)(2), (b)(5), (c), (d), (f), (g), (h)(1)-(h)(3), (h)(5), (h)(6), (i), (j)	Notification Requirements	Yes	
§ 63.9(b)(3), (h)(4)	Reserved	No	
§ 63.9(b)(4)		No	
§ 63.10(a), (b)(1), (b)(2)(i)-(v), (b)(2)(xiv), (b)(3), (c)(1), (c)(5)-(c)(8), (c)(10)-(c)(15), (d), (e)(1)-(e)(4), (f)	Recordkeeping and Reporting Requirements	Yes	Additional records for CMS in § 63.10(c) (1)-(6), (9)-(15), and reports in § 63.10(d)(1)-(2) apply if a COMS or CEMS is used.
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative	Yes	Requirements apply if a CEMS is used.
§ 63.10(c)(2)-(c)(4), (c)(9)	Reserved	No	
§ 63.11	Control Device Requirements	No	
§ 63.12	State Authority and Delegations	Yes	
§§ 63.13-63.16	Addresses, Incorporations by Reference, Availability of Information, Performance Track Provisions	Yes	

Attachment D
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

(e) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_X standards under this subpart and the SO_2 standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO_2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2 .

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.42c Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2 emissions limit or the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate or numerical SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s = SO_2 emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a = 520 ng/J (1.2 lb/MMBtu);

K_b = 260 ng/J (0.60 lb/MMBtu);

K_c = 215 ng/J (0.50 lb/MMBtu);

H_a = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this

section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and § 60.8, compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c is based on the average percent reduction and the average SO_2 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho} o) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao} o). The E_{ho} o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_j)}{X_j}$$

Where:

E_{ho} o = Adjusted E_{ho} , ng/J (lb/MMBtu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$ = Potential SO_2 emission rate, in percent;

$\%R_g$ = SO_2 removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$ = SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_g$ o) is computed from E_{ao} o from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate (E_{ai} o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$ o = Adjusted $\%R_g$, in percent;

E_{ao} o = Adjusted E_{ao} , ng/J (lb/MMBtu); and

E_{ai} o = Adjusted average SO_2 inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai} o, an adjusted hourly SO_2 inlet rate (E_{hi} o) is used. The E_{hi} o is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E_{hi} o = Adjusted E_{hi} , ng/J (lb/MMBtu);

E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0; and

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when

calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in § 60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from

the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in § 60.45c(c). The CEMS specified in paragraph § 60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2 , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and

operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in § 60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in § 60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section § 60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section § 60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in § 60.7, the owner or operator of an affected facility subject to the opacity limits in § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Attachment E
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on October 11, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

40 CFR Part 60, Subpart TT—Standards of Performance for Metal Coil Surface Coating

§60.460 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

(b) This subpart applies to any facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after January 5, 1981.

§60.461 Definitions.

(a) All terms used in this subpart not defined below are given the same meaning as in the Act or in subpart A of this part.

Coating means any organic material that is applied to the surface of metal coil.

Coating application station means that portion of the metal coil surface coating operation where the coating is applied to the surface of the metal coil. Included as part of the coating application station is the flashoff area between the coating application station and the curing oven.

Curing oven means the device that uses heat or radiation to dry or cure the coating applied to the metal coil.

Finish coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal coil, that coating is considered a finish coat.

Metal coil surface coating operation means the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.

Prime coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the initial coating(s) on the surface of the metal coil.

Quench station means that portion of the metal coil surface coating operation where the coated metal coil is cooled, usually by a water spray, after baking or curing.

VOC content means the quantity, in kilograms per liter of coating solids, of volatile organic compounds (VOC's) in a coating.

(b) All symbols used in this subpart not defined below are given the same meaning as in the Act and in subpart A of this part.

C_a= the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).

C_b= the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

C_f= the VOC concentration in each gas steam emitted directly to the atmosphere (parts per million by volume, as carbon).

D_c= density of each coating, as received (kilograms per liter).

D_d= density of each VOC-solvent added to coatings (kilograms per liter).

D_r= density of VOC-solvent recovered by an emission control device (kilograms per liter).

E= VOC destruction efficiency of the control device (fraction).

F= the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).

G= volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter).

L_c= the volume of each coating consumed, as received (liters).

L_d= the volume of each VOC-solvent added to coatings (liters).

L_r= the volume of VOC-solvent recovered by an emission control device (liters).

L_s= the volume of coating solids consumed (liters).

M_d= the mass of VOC-solvent added to coatings (kilograms).

M_o= the mass of VOC's in coatings consumed, as received (kilograms).

M_r= the mass of VOC's recovered by an emission control device (kilograms).

N= the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter).

Q_a= the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).

Q_b= the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

Q_f= the volumetric flow rate of each gas steam emitted directly to the atmosphere (dry standard cubic meters per hour).

R= the overall VOC emission reduction achieved for an affected facility (fraction).

S= the calculated monthly allowable emission limit (kilograms of VOC per liter of coating solids applied).

V_s= the proportion of solids in each coating, as received (fraction by volume).

W_o= the proportion of VOC's in each coating, as received (fraction by weight).

§60.462 Standards for volatile organic compounds.

(a) On and after the date on which §60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

(1) 0.28 kilogram VOC per liter (kg VOC/*l*) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

(2) 0.14 kg VOC/*l* of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(4) A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/*l* of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

§60.463 Performance test and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under §60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/*l* of coating solids applied.

(1) An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under §60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysisof each coating, as received, using Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under paragraph (c)(1)(iv) of this section. The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures.

(A) Calculate the mass of VOC's used (Mo+Md) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj} \qquad Equation\ 1$$

($\Sigma L_{dj}D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received)

where

n is the number of different coatings used during the calendar month, and

m is the number of different VOC solvents added to coatings used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^{n} V_{si} L_{ci} \qquad Equation\ 2$$

Where:

n is the number of different coatings used during the calendar month.

(C) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s} \qquad Equation\ 3$$

(ii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation:

$$N = G \qquad Equation\ 4$$

(iii) Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied (N) is equal to or less than 0.28 kg/*l,* the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/*l* of coating solids, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application.

(2) An owner or operator shall use the following procedures for each affected facility that continuously uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under §60.462(a) (2) or (3).

(i) Determine the overall reduction efficiency (R) for the capture system and control device.

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (c)(2)(i) (A), (B), and (C) of this section. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in paragraphs (c)(2)(i) (A), (B), and (C) of this section, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^{j} C_{ai} Q_{ai}}{\sum_{i=1}^{j} C_{ai} Q_{ai} + \sum_{i=1}^{k} C_{fi} Q_{fi}}$$

Where:

l is the number of gas streams entering the control device, and

p is the number of gas streams emitted directly to the atmosphere.

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^{n} Q_{si}C_{si} - \sum_{j=1}^{m} Q_{sj}C_{sj}}{\sum_{i=1}^{n} Q_{si}C_{si}}$$

Where:

n is the number of gas streams entering the control device, and

m is the number of gas streams leaving the control device and entering the atmosphere.

The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.466. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R = EF \qquad \textit{Equation 7}$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows.

(ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (A), (B), and (C) of this section.

(iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N = G(1 - R) \qquad \textit{Equation 8}$$

(iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/*l* of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(3) An owner or operator shall use the following procedure for each affected facility that uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.462(a) (2) or (3).

(i) Calculate the total mass of VOC's consumed (M_o+M_d) during each calendar month for each affected facility using equation (1).

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \quad \textit{Equation } 9$$

(iii) Calculate the overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R = \frac{M_r}{M_o + M_d} \quad \textit{Equation } 10$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) must be computed as follows.

(iv) Calculate the total volume of coating solids consumed (L_s) and the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (B) and (C) of this section.

(v) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation (8).

(vi) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg// of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(4) An owner or operator shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in §60.462(a)(4).

(i) Calculate the total volume of coating solids applied without the control device in operation (L_{sn}) during each calendar month for each affected facility using the following equation:

$$L_{sn} = \sum_{i-1}^{n} V_{si} L_{ci} \quad \textit{Equation } 11$$

Where:

n is the number of coatings used during the calendar month without the control device in operation.

(ii) Calculate the total volume of coating solids applied with the control device in operation (L_{sc}) during each calendar month for each affected facility using the following equation:

$$L_{sc} = \sum_{i-1}^{n} V_{si} L_{ci} \quad \textit{Equation } 12$$

Where:

n is the number of coatings used during the calendar month with the control device in operation.

(iii) Calculate the mass of VOC's used without the control device in operation (M_{on}+M_{dn}) during each calendar month for each affected facility using the following equation:

$$M_{on} + M_{dn} + \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj} \quad Equation\ 13$$

Where:

n is the number of different coatings used without the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used without the control device in operation during the calendar month.

(iv) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device in operation (G_n) during each calendar month for each affected facility using the following equation:

$$G_n = \frac{M_{on} + M_{dn}}{L_{sn}} \quad Equation\ 14$$

(v) Calculate the mass of VOC's used with the control device in operation (M_{oc}+M_{dc}) during each calendar month for each affected facility using the following equation:

$$M_{oc} + M_{dc} = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{i=1}^{m} L_{dj} D_{dj} \quad Equation\ 15$$

Where:

n is the number of different coatings used with the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used with the control device in operation during the calendar month.

(vi) Calculate the volume-weighted average of the total mass of VOC's used per unit volume of coating solids applied with the control device in operation (G_c) during each calendar month for each affected facility using the following equation:

$$G = \frac{M_{oc} + M_{dc}}{L_{sn}} \quad Equation\ 16$$

(vii) Determine the overall reduction efficiency (R) for the capture system and control device using the procedures in paragraphs (c)(2)(i) (A), (B), and (C) or paragraphs (c)(3) (i), (ii), and (iii) of this section, whichever is applicable.

(viii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using the following equation:

$$N = \frac{G_n L_{sn} + G_c L_{sc} (1 - R)}{L_{sn} + L_{sc}} \quad Equation\ 17$$

(ix) Calculate the emission limit(s) for each calendar month for each affected facility using the following equation:

$$S = \frac{0.28\ L_{sn} + 0.1\ G_c L_{sc}}{L_{ns} + L_{sc}}$$

or

$$\frac{0.28\ L_{sn} + 0.14\ L_{sc}}{L_{sn} + L_{sc}} \qquad Equation\ 18$$

(x) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§60.464 Monitoring of emissions and operations.

(a) Where compliance with the numerical limit specified in §60.462(a) (1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in §60.463.

(b) Where compliance with the limit specified in §60.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in §60.463.

(c) If thermal incineration is used, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with §60.462(a)(2), (3), or (4). This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28 °C (50 °F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than 28 °C (50 °F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§60.465 Reporting and recordkeeping requirements.

(a) Where compliance with the numerical limit specified in §60.462(a) (1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of this subpart shall include in the initial compliance report required by §60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with §60.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.

(b) Where compliance with §60.462(a)(2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by §60.8:

(1) The overall VOC destruction rate used to attain compliance with §60.462(a)(2), (3), or (4) and the calculated emission limit used to attain compliance with §60.462(a)(4); and

(2) The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with §60.462(a)(2), (3), or (4).

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(d) The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §60.464(c). If no such periods occur, the owner or operator shall state this in the report.

(e) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

[47 FR 49612, Nov. 1, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 56 FR 20497, May 3, 1991; 65 FR 61761, Oct. 17, 2000]

§60.466 Test methods and procedures.

(a) The reference methods in appendix A to this part, except as provided under §60.8(b), shall be used to determine compliance with §60.462 as follows:

(1) Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24;

(2) Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere;

(3) Method 1 for sample and velocity traverses;

(4) Method 2 for velocity and volumetric flow rate;

(5) Method 3 for gas analysis; and

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.

(c) For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dscm (0.11 dscf); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve testing of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.

[47 FR 49612, Nov. 1, 1982, as amended at 51 FR 22938, June 24, 1986; 65 FR 61761, Oct. 17, 2000]

Attachment F

Part 70 Operating Permit No: T033-30061-00043

[Downloaded from the eCFR on July 23, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

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.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

§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 that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(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 that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(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;

(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; 78 FR 6700, Jan. 30, 2013]

§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, operating limitations and other requirements 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, operating limitations, and other requirements 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, operating limitations, and other requirements 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; 78 FR 6701, Jan. 30, 2013]

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 and other requirements 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 and other requirements 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.

[78 FR 6701, Jan. 30, 2013]

§63.6603 What emission limitations, operating limitations, and other requirements 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 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. 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.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) 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.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

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, operating limitations, and other requirements 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, as amended at 78 FR 6702, Jan. 30, 2013]

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. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(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, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq.\ 1)$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, 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_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction 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:

$$F_o = \frac{0.209\ F_d}{F_c} \quad (Eq.\ 2)$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume 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, dsm3/J (dscf/106 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2—15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

%CO_2 = Measured CO_2 concentration 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; 78 FR 6702, Jan. 30, 2013]

§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 O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(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_2 concentration.

(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 (6) 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)(ii) 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 stationary RICE located at an area 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.

(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 (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 that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(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 business 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 business 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 business 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 business 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; 78 FR 6703, Jan. 30, 2013]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement 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.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

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, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements 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) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(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) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the

engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[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; 78 FR 6704, Jan. 30, 2013]

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).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§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.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§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) through (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 engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(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; 78 FR 6706, Jan. 30, 2013]

§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:

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

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.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

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 reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. 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.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. 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.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).

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.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

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; 78 FR 6706, Jan. 30, 2013]

Table 1a to 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 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major 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:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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 existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 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.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

Table 2a to 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_2 until 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 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI 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 CI Stationary RICE >500 HP

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 CI 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; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water 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]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; 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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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, and replace as necessary; 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, and replace as necessary;	
	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, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	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) or (j) 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.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

Table 2d to 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] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	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.
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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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 replace as necessary; 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 replace as necessary; 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 replace as necessary; 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]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; 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 remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. 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 replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	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 replace as necessary; 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) or (j) 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.

[78 FR 6709, Jan. 30, 2013]

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 >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]

For each . . .	Complying with the requirement to . . .	You must . . .
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours 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.

[78 FR 6711, Jan. 30, 2013]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

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. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O_2 measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		ii. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[ac] (heated probe not necessary)	(b) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005)[abc] (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) 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/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[a] (heated probe not necessary)	(a) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC 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-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03[a]	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formalde-hyde 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[a], 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. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7	(a) THC 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 concentra-tion of formalde-hyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[a] (heated probe not necessary)	(a) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the station-ary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03[a]	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. Measure formalde-hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03[a], 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 station-ary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005)[ac], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03[a]	(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 or 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.

[b]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.

[79 FR 11290, Feb. 27, 2014]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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, and 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 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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at 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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and

		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	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, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; 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	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 or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; 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. 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 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. 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.

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 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. 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.
11. 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 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.
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. 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.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

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, and existing non-emergency stationary CI RICE >500 HP	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.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[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.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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 stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	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.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		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	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	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	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	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	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		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.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

[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.

[78 FR 6715, Jan. 30, 2013]

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; 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	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	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.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
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.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§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.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	*7782-44-7*	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2. When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ±3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two

consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ±3 percent of the up-scale gas value or ±1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ±0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ±5 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ±2 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ±2 percent, or ±1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ±2 percent *or* ±1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ±5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A—Sampling Run Data.

Facility_____ Engine I.D._____ Date_____											
Run Type:	(_)			(_)			(_)				(_)
(X)	Pre-Sample Calibration			Stack Gas Sample			Post-Sample Cal. Check				Repeatability Check
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
"											
"											
"											
"											

Measurement Data Phase											
"											
"											
"											
"											
"											
"											
"											
"											
"											
"											
Mean											
Refresh Phase											
"											
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"											

[78 FR 6721, Jan. 30, 2013]

Attachment G
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 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 applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$ g/KW-hr ($6.7 \cdot n^{-0.20}$ g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in § 60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in § 60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in § 60.4201(a) through (c) and § 60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in § 60.4201(d) and (e) and § 60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any

such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in § 60.4202 but does not meet all the emission standards for non-emergency engines in § 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§ 60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§ 60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;

(iii) 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;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the

engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in § 60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

Ci = concentration of NOX or PM at the control device inlet,

Co = concentration of NOX or PM at the control device outlet, and

R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \qquad \text{(Eq. 3)}$$

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2 .

Cd = Measured concentration of NOX or PM, uncorrected.

5.9 = 20.9 percent O2 −15 percent O2 , the defined O2 correction value, percent.

%O2 = Measured O2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O2 and CO2 concentration is measured in lieu of O2 concentration measurement, a CO2 correction factor is needed. Calculate the CO2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \qquad \text{(Eq. 4)}$$

Where:

Fo = Fuel factor based on the ratio of O2 volume to the ultimate CO2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O2 , percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3 /J (dscf/106 Btu).

Fc = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm3 /J (dscf/106 Btu).

(ii) Calculate the CO2 correction factor for correcting measurement data to 15 percent O2 , as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

XCO2 = CO2 correction factor, percent.

5.9 = 20.9 percent O2 −15 percent O2 , the defined O2 correction value, percent.

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O2 using CO2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2 .

Cd = Measured concentration of NOX or PM, uncorrected.

%CO2 = Measured CO2 concentration, dry basis, percent.

(e) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

Cd = Measured NOX concentration in ppm.

1.912x10−3 = Conversion constant for ppm NOX to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

Cadj = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§ 60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§ 60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in § 60.4202 and § 60.4205, and not those for non-emergency engines in § 60.4201 and § 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in § 60.4201 and § 60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of § 60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of § 60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and § 60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4204 or § 60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

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 number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE 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 ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4211(f)(2)(ii) or (iii) and § 60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas 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 internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in § 60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_X+ NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)[1]
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ [1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ [1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ [2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ [3]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ [3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

[1] For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2] For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3] In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed [1]	Torque (percent) [2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1] Engine speed: ±2 percent of point.

[2] Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO_Xemissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(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;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for NO_Xconcentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_Xconcentration.
		iv. Measure NO_Xat the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO_Xconcentration 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.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	b. Limit the concentration of NO_Xin the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(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 internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurement for NO_Xconcentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_Xconcentration.
		iv. Measure NO_Xat the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO_Xconcentration 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.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(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;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM 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.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM 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.

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	Yes	
§ 60.2	Definitions	Yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes	
§ 60.4	Address	Yes	
§ 60.5	Determination of construction or modification	Yes	
§ 60.6	Review of plans	Yes	
§ 60.7	Notification and Recordkeeping	Yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	Yes	
§ 60.10	State Authority	Yes	
§ 60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§ 60.12	Circumvention	Yes	
§ 60.13	Monitoring requirements	Yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14	Modification	Yes	
§ 60.15	Reconstruction	Yes	
§ 60.16	Priority list	Yes	

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.17	Incorporations by reference	Yes	
§ 60.18	General control device requirements	No	
§ 60.19	General notification and reporting requirements	Yes	

Attachment H
To Part 70 Operating Permit Renewal No. T033-30061-00043

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 63, Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Source: 73 FR 1945, Jan. 10, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in § 63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in § 63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in § 63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to § 63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4181, Jan. 24, 2011]

§ 63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in § 63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

§ 63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in § 63.11111(c) or § 63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under § 63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4181, Jan. 24, 2011]

Emission Limitations and Management Practices

§ 63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, 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. 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.

(b) You must keep applicable records and submit reports as specified in § 63.11125(d) and § 63.11126(b).

[76 FR 4182, Jan. 24, 2011]

§ 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

§ 63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section § 63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in § 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in § 63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under § 63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§ 63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in § 63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in § 63.11120.

(f) You must submit the applicable notifications as required under § 63.11124.

(g) You must keep records and submit reports as specified in §§ 63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008]

Testing and Monitoring Requirements

§ 63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in § 63.11113(e), of a vapor balance system required under § 63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, *see* § 63.14).

(b) Each owner or operator choosing, under the provisions of § 63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph § 63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see § 63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in § 63.11092(f).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

Notifications, Records, and Reports

§ 63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in § 63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in § 63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, within 60 days of the applicable compliance date specified in § 63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in § 63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11118. If your affected source is subject to the control requirements in § 63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, in accordance with the schedule specified in § 63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is

determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11120(a) and (b).

(5) You must submit additional notifications specified in § 63.9, as applicable.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 must keep records of all tests performed under § 63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in § 63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (*e.g.,* via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

§ 63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under § 63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year 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 § 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Other Requirements and Information

§ 63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§ 63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§ 63.11116 through 63.11118 and 63.11120.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

§ 63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f) of this part.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More[1]

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to § 63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in § 63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in § 63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:
	$Pf = 2e^{-500.887/v}$
	Where:
	Pf = Minimum allowable final pressure, inches of water.
	v = Total ullage affected by the test, gallons.
	e = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to § 63.11118	Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in § 63.11132, and comply with the requirements of item 1 in this Table.

[1] The management practices specified in this Table are not applicable if you are complying with the requirements in § 63.11118(b)(2), except that if you are complying with the requirements in § 63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4184, Jan. 24, 2011]

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in § 63.11125(c).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in § 63.11111.
§ 63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, § 63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§ 63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in § 63.11132.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to § 63.11116
§ 63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§ 63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, § 63.11113 specifies the compliance dates.
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§ 63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No.*See*§ 63.11115 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§ 63.6(e)(2)	[Reserved]		
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§ 63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§ 63.6(h)(2)(ii)	[Reserved]		
§ 63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§ 63.6(h)(3)	[Reserved]		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§ 63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§ 63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)	No.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§ 63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§ 63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§ 63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§ 63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, § 63.11120(c) specifies conditions for conducting performance tests.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in § 63.11 apply	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§ 63.8(c)(1)(i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in § 63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in § 63.6(e)(3)	No.
§ 63.8(c)(2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§ 63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§ 63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§ 63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§ 63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No.*See*§ 63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§ 63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§ 63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	No.*See*§ 63.11126(b) for malfunction reporting requirements.
§ 63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§ 63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No, § 63.11130(K) specifies excess emission events for this subpart.
§ 63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No.
§ 63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.11(b)	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§ 63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	**Steel Dynamics, Inc. - Flat Roll Division**
Source Location:	**4500 County Road 59, Butler, IN 46721**
County:	**DeKalb**
SIC Code:	**3312**
Permit Renewal No.:	**T033-30061-00043**
Permit Reviewer:	**Kristen Willoughby**

On July 10, 2014, the Office of Air Quality (OAQ) had a notice published in the Auburn Evening Star, Auburn, Indiana, stating that Steel Dynamics, Inc. - Flat Roll Division had applied for a Part 70 Operating Permit Renewal to continue operating a stationary steel minimill. The notice also stated that the OAQ proposed to issue a Part 70 Operating Permit Renewal for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments from Mr. Barry Smith and IDEM, OAQ Responses

On August 11, 2014, Mr. Barry Smith on behalf of Steel Dynamics, Inc. - Flat Roll Division submitted comments to IDEM, OAQ on the draft Part 70 Operating Permit Renewal.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1: Section A.5 Insignificant Activities

SDI requests that the A.5 Insignificant Activities list be updated to include the solvent recovery system to recover MEK from paint waste (instead of sending it offsite for disposal) recently approved under Administrative Amendment 34479 May 19, 2014.

Response to Comment 1:

The permit has been revised as follows:

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

Steel Dynamics, Inc. - Flat Roll Division also includes the following insignificant activities:

***

(aa) One (1) solvent recovery system, associated with the Paint Line (Coil Coating Line), with a nominal throughput of 25,410 gallons of solvent recovered per year, and exhausting inside.

Comment 2: Section B- Dual Conditions

Due to the issuance of two separate Title V permits to the SDI source for administrative purposes, the Flat Roll and Iron Dynamics Divisions are at risk of dual violations for conditions that may potentially exist at both divisions but that are the result of one requirement that originates with the source as a whole or the Title V Permit requirement. One example of the potential for dual violations being applied to both Divisions is with Condition C.6 “Fugitive PM Emission Limitations” requirement to control fugitive PM emissions according to a dust control plan which covers both plants and is included under both permits. The FRD permit also includes a requirement to implement the dust control plan (pursuant to BACT) under Condition D.12.1. There are other potentially dual violations which could result from the overlapping permit conditions between the two Divisions of SDI. To avoid the potential for dual violations being applied to both Divisions, SDI requests that the following condition be added in Section B:

Any condition in this permit for which compliance is determined jointly or through a joint report or record with the administratively separate permitted source known as SDI-Iron Dynamics Division (033-30062-00076) shall be limited in a determination, compliance, or enforcement action to applicability with solely one of the permitted sources known as SDI-Flat Roll Division or SDI-Iron Dynamics Division.

Response to Comment 2:

The Permittee requested to be issued two (2) Administratively Separate Title V permits. Together these two (2) administratively separate permits are one Title V operating permit. The two plants, Flat Roll and Iron Dynamics Divisions, meet the definition of one “major source” under 326 IAC 2-7-1(22). There is only one permitted major source. Any enforcement action would be brought against the major source, not the individual plants. IDEM, OAQ would not take an enforcement action to issue dual violations. IDEM, OAQ can, upon request, combine these two (2) administratively separate permits into one permit. No change has been made as a result of this comment.

Comment 3: C.19 General Reporting Requirements

SDI requests that the provisions regarding reports under Compliance Assurance Monitoring (CAM) be clarified to specifically cite the subset of compliance provisions required by CAM. For example, the condition calls for reporting the actions taken to implement a QIP. However, not all of the conditions under “C. 15 Response to Excursions or Emergencies” are subject to QIP requirements.

Response to Comment 3:

Condition C.19(a) paragraph 3 states "A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:" IDEM, OAQ believes the statement "as applicable" is sufficient to notify the Permittee that they must only submit what is applicable. No change has been made as a result of this comment.

Comment 4: Condition D.1.8(c) Visible Emissions Limitations (BACT)

We believe that the following condition is more consistent with the original condition cited in (c) for PSD Permit 033-3692-00043 and we request that the renewal permit D.1.8(c) be replaced entirely with the following:

Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2—2 (PSD Control Technology Review Requirements), slag that is dug out of the slag pit located beneath each EAF shall be transferred to dump trucks within the confines of the EAF shop building. Visible emissions shall not exceed 5 percent opacity from any building roof monitor or building opening as a result of this operation.

For comparison purposes, the Original Permit 3692 (c) language is included below:

That visible emissions from any stack, other process emissions, control device, building roof monitor, or EAF slag pit dig out operation located beneath each furnace shall not exceed 5 percent opacity, unless otherwise specified by the above conditions. Visible emissions for the conditions in this permit shall be determined by 40 CFR 60 Appendix A, Method 9 and 326 IAC 5-1.

Response to Comment 4:

The original Condition 23 from CP 033-3692-00043 and the current draft permit state "EAF slag pit dig out operation located beneath each furnace." Without further investigation and documentation of the intent of the BACT analysis conducted as part of CP 033-3692-00043, IDEM, OAQ believes it is appropriate to keep to the language from CP 033-3692-00043. No change has been made as a result of this comment.

Comment 5: D.1.11 Testing Requirements

IDEM retains stack tests results for all SDI air emission testing and SDI previously provided IDEM a summary or those stack test results to justify that the testing frequency for all pollutants be reduced to once every five years, rather than 2.5 years for both EAF 1 and EAF 2. These results show that actual PM emissions are only 20-25% of the applicable emissions limits. Actual emissions of SO2, NOx, and VOC are about half of their respective limits. Lead and Mercury emission are about 10% of their respective limits. The last sentence of each paragraph of D.1.11 (a)- (f) should be revised to state the testing period for EAF1 and 2 as ". . .at least once every five (5) calendar years, beginning with 2017."

Response to Comment 5:

As agreed upon during conversations with representatives of Steel Dynamics, Inc. - Flat Roll Division, IDEM, OAQ acknowledges that it is willing to review the above testing requirements and address revisions to the permit as a future permitting action. IDEM, OAQ will continue its review of these test results and work with SDI to reach a resolution. No change has been made as a result of this comment.

Comment 6: D.1.14 Bag Leak Detection System (BLDS)

This entire section should mirror that of the IDD permit (30062) as the provisions would be identical if issued under one Title V permit. Differences are not technically nor legally warranted and could lead to unnecessary confusion and disorder. The manufacturer specifications are tailored to the installed system and should be allowed in addition to U.S. EPA's generic guidance, not only if the U.S. EPA guidance is missing.

Response to Comment 6:

The permit has been revised as follows:

D.1.14 Bag Leak Detection System (BLDS)

The Permittee shall comply with the following:

(a) The Permittee shall install and operate a continuous bag leak detection system (BLDS) on EAF Baghouse #1 and EAF Baghouse #2.

(b) The BLDS shall meet the following requirements:

***

(4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or~~, in the absence of such written guidance,~~ the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

***

Comment 7: D.1.16(b), D.10.11(b) General Provisions Relating to New Source Performance Standards

Remove the requirement to mail notifications to U.S.EPA. IDEM has authority to receive notifications on behalf of U.S.EPA.

Response to Comment 7:

The permit has been revised follows:

D.1.16 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the Electric Arc Furnaces, except as otherwise specified in 40 CFR Part 60, Subpart AAa.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~and~~

~~United States Environmental Protection Agency, Region 5~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

D.10.11 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart TT.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~and~~

~~United States Environmental Protection Agency, Region 5~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

Comment 8: D.2.7 Testing Requirements

As with the EAFs comments under D.1.11, IDEM has a copy of the stack tests results for the LMF and SDI previously provided IDEM a summary of those stack test results to justify that the testing frequency for all pollutants be reduced to once every five years, rather than 2.5 years. These results show that all pollutants are about half of their respective limits, some even better. CO and NOx are less than 50% of their respective limits. VOC is about 30-70% of their respective limits. The last sentence of each paragraph of D.2.7 (a) - (e) should be revised to state the testing period for the LMF as ". . . at least once every five (5) calendar years, beginning in 2017.

Response to Comment 8:

As agreed upon during conversations with representatives of Steel Dynamics, Inc. - Flat Roll Division, IDEM, OAQ acknowledges that it is willing to review the above testing requirements and address revisions to the permit as a future permitting action. IDEM, OAQ will continue its review of these results and work with SDI to reach a resolution. No change has been made as a result of this comment.

Comment 9: D.2.8(a) Particulate Control

Change "...LMSs and stir stations..." to simply "LMS". The LMS by definition includes the ladle metallurgical furnaces (LMFs) and stir stations.

Response to Comment 9:

The permit has been revised as follows:

D.2.8 Particulate Control [326 IAC 2-7-6(6)]

(a) The LMF baghouse shall be operated at all times when the LMSs ~~and stir stations~~ are in operation.

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

Comment 10: D.3.3, D.6.3, D.8.3, D.9.3, and D.10.3 Preventive Maintenance Plan

There is NO preventive maintenance that can be performed on these natural gas-fired emission units that would prevent excess emissions or exceedances of the permitted emissions limitations. In addition, there are no replacement parts that could affect or prevent excess emissions. PMPs are to be required only when the Commissioner of IDEM has deemed them necessary pursuant to 236 IAC 1-6-3. Recognizing that PMPs are required for the air pollution control devices, SDI requests that IDEM either remove the PMP requirements for these emission units, or provide examples of preventive maintenance that would prevent excess emissions from the emission units in question to fulfill the Commissioner's burden under 236 IAC 1-6-3 to deem them necessary.

Response to Comment 10:

For Conditions D.3.3, D.6.3, D.8.3, and D.10.3: Pursuant to 326 IAC 1-6-1, any person responsible for operating any facility specified in 326 IAC 1-6-1 shall prepare and maintain a preventive maintenance plan. This is an applicable requirement which pursuant to 326 IAC 2-7 must be included in this permit. Notwithstanding the permittee's objections related to their ability to determine what would constitute a valid PMP, the obligation to prepare and maintain a PMP still exists. The Commissioner does not have a burden under 326 IAC 1-6-3 to provide example preventive maintenance plans.

Given the relative size of the annealing furnaces and the fact that each meets the definition of an insignificant activity under 326 IAC 2-7-1(21), IDEM has removed the requirement to prepare and maintain a preventative maintenance plan for each of these units. Condition D.9.3 has been removed as shown below:

~~D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]~~

~~A Preventive Maintenance Plan is required for the annealing furnaces and low NOx burners. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.~~

No change has been made to Conditions D.3.3, D.6.3, D.8.3, and D.10.3 as a result of this comment.

Comment 11: D.4.5 (b) & (c) Parametric Monitoring

The requirement to use only the flow rate from the latest stack test is overly restrictive. The scrubber manufacturer has supplied specifications for operating the scrubber under various conditions. In addition, flow rates recorded during previous compliant stack tests are available to demonstrate conditions that are consistent with compliant operation. The majority of the stack test results demonstrate that emissions were on the order of 10% of the allowable emission rate. Minor differences in flows would have no effect on the actual compliance status of the pickle line. SDI requests that the D.4.6(b) condition be revised to allow for determination of “the minimum flow rate from the lowest flow rate demonstrated in a valid stack test that demonstrated compliance with limits in Condition D.4.2...”

Response to Comment 11:

How a control device operates changes with the age of the unit and the maintenance performed over time. A flow rate at which a scrubber demonstrated compliance with a limit prior to the most recent valid compliance demonstration may not be a flow rate it could demonstrate compliance with today. Additionally, this is a variable which can be controlled during a stack test. Therefore, if a Permittee wants to run at a different flow rate to allow for flexibility then the Permittee may vary the flow rate during a compliant stack test. No change has been made as a result of this comment.

Comment 12: D.4.6 Scrubber Failure Detection

The requirement to “shut down immediately” the process should the scrubber fail is unreasonable. SDI must remove the coil from the process before shutting down or risk total failure of the line through the process. This could take up to an hour. The emergency defense under B.11 is applicable because both D.4.1 (BACT) and D.4.2 (Limit on PTE) are technology based emission limits. Technology-based emission limits allow the process to continue operating during an emergency. To provide operational clarity given the known coil removal issue and to avoid the unnecessary paper work requirements to document such an occurrence as an emergency, SDI requests that the D.4.6 language be revised to “For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately upon removal of the coil from the process until the failed unit has been repaired or replaced. Operations may continue following coil removal only if the event qualifies as an emergency and ...“

Response to Comment 12:

The permit has been revised as follows:

D.4.6 Scrubber Failure Detection

In the event, a scrubber failure has been observed:

For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately **upon removal of the coil from the process** 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 (Condition B.11 - Emergency Provisions).

Comment 13: D.6.2 Pickle Line Boiler Particulate Emission Limitations

It should be clarified that the particulate emissions limitations are for filterable PM only. 326 IAC 6-2-4 was originally adopted (under a previous rule codification scheme) as part of Indiana's State Implementation Plan for TSP (Total Suspended Particulates). TSP and the SIP applied solely to filterable particulate matter. Indiana made general showings that its existing rules regulating filterable TSP were adequate to maintain the subsequent NAAQS for PM- 10 and PM-2.5. No specific PM-10 or PM-2.5 rules for regulating condensable particulate matter apply in DeKalb County. SDI requests that the condition be clarified to "filterable particulate emissions".

Response to Comment 13:

326 IAC 6-2-4 regulates particulate matter emissions as defined in 326 IAC 1-2-52. 326 IAC 3-6-5 further specifies the following the procedures for particulate matter: 40 CFR 60, Appendix A, Method 5, 5A, 5B, 5C, 5D, 5E, or 5F. These methodologies only measure filterable particulate matter. IDEM, OAQ does not believe additional clarification is necessary. No change has been made as a result of this comment.

Comment 14: D.6.4(a) Pickle Line Boilers Record Keeping Requirements

Remove this condition as no boiler serves as a backup boiler. All boilers are used on a rotating basis. The fuel use records required in 40 CFR 60, Subpart Dc are adequate to demonstrate compliance with Condition D.6. 1.

Response to Comment 14:

The permit has been revised as follows:

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

~~D.6.4 Record Keeping Requirements~~

~~(a) To document the compliance status with Condition D.6.1 - Nitrogen Oxide (NOx) Limitations - Best Available Control Technology, the Permittee shall maintain records of when Boiler No. 3 is used as a backup for Boiler No. 1 or Boiler No. 2.~~

~~(b) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.~~

Comment 15: D.10.6(b) - Testing Requirements, and D.10.8(c), (d) - Thermal Oxidizer

Condition D.10.6(b) should require the determination of 3-hour average temperatures and duct pressure or fan amperage rather than hourly to be consistent with the CAM provisions of D.10.8. In addition, the requirement to use only information from the latest stack test is overly restrictive. Temperatures recorded during previous compliant stack tests are available to demonstrate conditions that are consistent with compliant operation. Recent stack test results demonstrate that emissions were on the order of 10-30% of the allowable emission rate. Minor difference in temperatures would have no effect on the actual compliance status of the coil coating line, especially considering the combustible nature of the solvents at temperatures considerably lower than those demonstrated for compliance. SDI requests that D.10.8(d) be revised to provide that the 3-hour average temperature shall be determined "from the lowest temperature demonstrated in a valid stack test that demonstrates compliance with the limits in Condition D.10.1...". SDI also requests that D.10.8(c) be revised to provide that the duct pressure or fan amperage be "maintained within the normal range as established in a compliant stack test."

Response to Comment 15:

The permit has been revised as follows to remove D.10.6(b) as it is duplicative to the requirements of Condition D.10.8:

D.10.6 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1),(6)]

***

~~(b) The Permittee shall determine the hourly average temperature and duct pressure or fan amperage for the thermal oxidizer from the most recent valid stack test that demonstrates compliance with the limits in conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC) as approved by IDEM.~~

***

How a control device operates changes with the age of the unit and the maintenance performed over time. Other operating parameters (such as residence time or coatings used) also affect compliance in any given stack test. If a company demonstrates compliance utilizing a RTO with a limit prior to the most recent compliance demonstration at 850°F, but fails the most recent compliance demonstration today at 900°F then the unit is not in compliance at 850°F even though it was previously. Additionally, temperature is a variable which can be controlled during a stack test. Therefore, if a Permittee wants to run at a different temperature to allow for flexibility then the Permittee may vary the temperature during a compliant stack test. No change has been made to Condition D.10.8 as a result of this portion of the comment.

Comment 16: D.10.8 Thermal Oxidizer (CAM)

At the end of this condition (b) delete "...by D.10.5 —Thermal Oxidizer and...". The minimum operating temperature is established by D.10.6.

D.10.8(c) and (d) should both strike, "... most recent..." consistent with our comment on D.10.6(b). Test should read "tests".

D.10.8(e) should be revised to read, ". . .shall operate the thermal oxidizer no lower than 50°F below the temperature by D.10.8(b) (or D.10.6(b)).

Response to Comment 16:

Condition D.10.8(b) comment - The permit has been revised as follows:

D.10.8 Thermal Oxidizer [40 CFR 64]

***

(b) The Permittee shall record all periods (during actual coating operations) in excess of 3 hours during which the 3-hour average temperature in the thermal oxidizer used to control VOC emissions from an affected facility remains more than 28°C (50°F) below the temperature at which compliance with limit in D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by ~~D.10.75 - Thermal Oxidizer and~~ D.10.6 - Testing Requirements.

Condition D.10.8(c) and (d) comment - How a control device operates changes with the age of the unit and the maintenance performed over time. Other operating parameters (such as residence time or coatings used) also affect compliance in any given stack test. If a company demonstrates compliance

utilizing a RTO with a limit prior to the most recent compliance demonstration at 850°F, but fails the most recent compliance demonstration today at 900°F then the unit is not in compliance at 850°F even though it was previously. Additionally, temperature is a variable which can be controlled during a stack test. Therefore, if a Permittee wants to run at a different temperature to allow for flexibility then the Permittee may vary the temperature during a compliant stack test. No change has been made to Condition D.10.8(c) or (d) as a result of this portion of the comment.

Condition D.10.8(e) comment - The current language is consistent with IDEM, OAQ's model language. No justification was provided for the requested change. No change has been made as a result of this portion of the comment.

Comment 17: D.10.9(b)(1) Record Keeping Requirements

Change "...used to demonstrate compliance during the most recent compliant stack test" to "used to demonstrate compliance." The reason is that consistent with our comment on Condition D. 10.6(b), the most recent stack test is not the only source of compliance monitoring data.

Response to Comment 17:

The requirements of D.10.6(b) have been removed because they are duplicative of requirements contained in D.10.8. How a control device operates changes with the age of the unit and the maintenance performed over time. Other operating parameters (such as residence time or coatings used) also affect compliance in any given stack test. If a company demonstrates compliance utilizing a RTO with a limit prior to the most recent compliance demonstration at 850°F, but fails the most recent compliance demonstration today at 900°F then the unit is not in compliance at 850°F even though it was previously. Additionally, temperature is a variable which can be controlled during a stack test. Therefore, if a Permittee wants to run at a different temperature to allow for flexibility then the Permittee may vary the temperature during a compliant stack test. No change has been made to Condition D.10.9(b)(1) as a result of this comment.

Comment 18: D.10.9(c)(1) & (2) Record Keeping Requirements

Add ". . .each month..." to the end of the first sentence in (1) for clarity. In (2) replace, ". . .dates of..." with months...". The requirement to maintain a log of the dates of VOC and HAPs usage is not required to document compliance with the requirements of D.10.9(c)(1),(3),and (4).

Response to Comment 18:

The permit has been revised as follows:

D.10.9 Record Keeping Requirements

***

(c) If VOC emissions from the 2-side, 2-coat coil coating line equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee shall determine the compliance status with the HAP limits in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

(1) The amount and HAP content of each coating material and solvent used **each month**. Records may include, for example, inventory records and Material Safety Data Sheets (MSDS) necessary to verify the type and amount used.

~~(2) A log of the dates of use.~~

(~~3~~**2**) The single and combined HAP usage for each month.

(~~4~~**3**) The weight of the single and combined HAPs emitted for each compliance period.

***

Comment 19: D.13.1(b) General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63

Remove this condition since SDI is not subject to any notification provision.

Response to Comment 19:

The permit has been revised as follows:

D.13.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

~~(a)~~ Pursuant to 40 CFR 63.6565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the above listed emissions units, as specified in 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR Part 63, Subpart ZZZZ.

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

~~and~~

~~United States Environmental Protection Agency, Region 5~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

Comment 20: D.15.1(a)(b) Volatile Organic Compounds (VOC)

Conditions (a) and (b) limit throughput to 10,000 gallons per month per tank. 40 CFR 63.11111(h) limits gasoline to 10,000 gal delivered dispensed per month, regardless of the number of tanks. “Throughput” does not necessarily include delivery, only dispensed. Nor does the rule specify per tank, which implies total facility. D.15.1 should be rewritten as follows.

The monthly gasoline delivered or dispensed from Gasoline Storage Tank #2 (or T2) and Gasoline Storage Tank #3 (or T3) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

Response to Comment 20:

326 IAC 8-4-6(d) states that "Section 6(a) and 6(b) of this rule apply to any gasoline storage tank at a gasoline dispensing facility with a monthly gasoline *throughput* of ten thousand (10,000) gallons per month

or greater." The language in Condition D.15.1 is consistent with the rule. No change has been made as a result of this comment.

Comment 21: D.15.2(a) Record Keeping Requirements

This condition should be changed appropriately to match the corrected requirement in D.15.1 above.

Response to Comment 21:

326 IAC 8-4-6(d) states that "Section 6(a) and 6(b) of this rule apply to any gasoline storage tank at a gasoline dispensing facility with a monthly gasoline *throughput* of ten thousand (10,000) gallons per month or greater." The language in Condition D.15.2 has been revised as follows to be consistent with the rule.

D.15.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.13.2 - Volatile Organic Compounds (VOC), the Permittee shall maintain records of the monthly gasoline ~~dispensed~~ **throughput** from Gasoline Storage Tanks #2 and #3 (or T2 and T3).

(b) Condition C.17 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

Comment 22: General

SDI requests that specific discussion and commitment to address the comments herein submitted be included in the ATSD should IDEM determine upon consideration that a future Administrative Amendment RATHER than correctional revision to the Title V Renewal Permit PRIOR to Issuance is warranted for any specific comments. IDEM must include specific rights for preservation of SDI's right to appeal.

Response to Comment 22:

IDEM, OAQ's responses to the Permittee's comments 5, 8, 23 and 24 specifically address the Permittee's concerns and IDEM, OAQ is willing to further review these issues. These issues may be addressed in subsequent permitting actions, if needed. IDEM has no authority to include any specific right for preservation of the Permittee's right to appeal. The permit conditions are effective as issued in this permitting action. The appeal process is described in the Notice of Decision for this permitting action.

Comment 23: Regarding Stack Testing in General

SDI requests that all stack testing be performed during the same calendar year. Please revise the reference to ". . . .at least once every five years from the date of the most recent valid compliance demonstration...." In conditions D. 1.11, D.2.7, D.4.4, and D. 10.6 to read, "once every five (5) calendar years, beginning in 2017."

Response to Comment 23:

Information submitted by the Permittee is currently under review by IDEM's Compliance and Enforcement Section. No change will be made at this time. If IDEM's Compliance and Enforcement Section decides a change is appropriate, then the Permittee may submit a separate application for the requested change. No change has been made as a result of this comment.

Comment 24: BACT Conditions

SDI is concerned that the draft Title V Permit contains BACT conditions that have issues regarding inaccurate transcription from the permit that established BACT under 326 IAC 2-2, contain requirements that have no environmental significance, or contain requirements that are impractical and environmentally insignificant. IDEM has previously indicated that no changes to these conditions will be made during the Part 70 Permit Renewal process. Furthermore, IDEM has indicated that an entirely new BACT review will

be required to make any revision to a BACT condition as if the emission unit were being built today. We take issue with both positions as described below:

D.1.1 100% capture, 99.85% control efficiency PSD permit 23028:

BACT review of EAF PM emissions was focused on ranking the effectiveness of baghouse control in terms of gr/dscf and the 3% opacity limitation to ensure complete capture. The % control efficiency was not a deciding element of the BACT determination and 100% capture gives the impression that this number can be physically determined. Neither have a practical impact on the effectiveness of the system used to meet the BACT limitations on grain loading and opacity.

D. 1.2 Individual heat ratings on tundish dryer burners PSD permit 3692 Individual heat ratings on tundish preheat burners PSD permit 4997:

Regardless of the heat ratings of the individual burners the BACT emission limitation would be 0.1 pound per MMBtu. These conditions would be BACT if written consistently with the previous conditions that use an overall heat capacity for Ladle Dryout and Ladle Preheat. There is no environmental significance in having individual heat rating limits.

D.1.3 High quality scrap and monitoring sulfur content of coke PSD permit 8091:

BACT review of EAF SO2 emissions focused on ranking emissions limitations in terms of pounds per ton. Stack test after stack test demonstrates compliance by a wide margin. Attempting to monitor sulfur input accomplishes no environmental benefit.

D.1.4 Individual CO limits PSD permit 8091:

There is no significant environmental benefit to maintaining separate limits, rather than combined limits consistent with Condition 1.3 for SO2 and Condition D. 1.5 for VOC.

D1.8(b') Removal of 3% opacity reflective of 100% capture PSD Permit 8091:

Stating that the 3% opacity BACT limit is reflective of 100 percent capture is an explanatory statement that belongs in a Technical Support Document, not a permit condition that is intended to be enforceable.

D.1.8 Delete 5% opacity from slag pit PSD Permit 3692:

As separately raised, the draft renewal condition does not accurately reflect the condition established by permit 3692.

D.5. 1 Adding 'filterable" to PM limit for scale breaker (not a BACT reopener) PSD Permit 5625:

The mechanical nature of the scale breaker means that 100% particulate matter generated is filterable. This correction does not require reopening of BACT and should be corrected with this Renewal.

D.11.1 Clarifying the FDCP requirement for 95% reduction of PM1O from slag processing and 80% of dust from storage piles PSD permit 3692 and D.12.1 Clarifying the FDCP requirement to reduce dust by 80% from roads and parking PSD Permit 3692:

The original Fugitive Dust Control Program used specific methodologies for demonstrating that the plans would achieve the stated percent reduction requirements. Those methodologies should be specifically cited as the basis for demonstrating compliance with those requirements.

Response to Comment 23:

As agreed upon during conversations with representatives of Steel Dynamics, Inc. - Flat Roll Division, IDEM, OAQ acknowledges that it is willing to review the above BACT Conditions and address revisions to the permit as a future permitting action. IDEM, OAQ will continue its review of this comment and work with SDI to reach a resolution. No change has been made as a result of this comment.

Response to Comment 4: HAP Emission Limits and Testing Requirements made on Steel Dynamics, Inc. – Iron Dynamics Division's Part 70 Operating Permit Renewal (T033-30062-00076)

In response to Comment 4 – HAP Emission Limits and Testing Requirements made on Steel Dynamics, Inc. – Iron Dynamics Division's Part 70 Operating Permit Renewal (T033-30062-00076), the following language has been added to Steel Dynamics, Inc. – Flat Roll Division's Part 70 Operating Permit Renewal (T033-30061-00043):

SECTION D.0 FACILITY OPERATION CONDITIONS

Emission Unit Description: Entire Source HAP Limitation

(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.0.1 HAP Minor Limitation [40 CFR 63.1]

To ensure the Permittee meets the definition of an area source under 40 CF R 63.2, the Permittee shall comply with the following:

(a) Source wide total HAP emissions shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Source-wide chromium HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Source-wide manganese HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall limit the HAP emissions from the entire source to less than ten (10) tons of any single HAP and less than twenty-five (25) tons of total HAPs per twelve (12) consecutive month period, respectively, and the entire source is rendered an area source of HAP Emissions under Section 112 of the Clean Air Act (CAA).

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

D.0.2 Hazardous Air Pollutants

In order to demonstrate compliance with Condition D.0.1 - HAP Minor Limitation, the Permittee shall use the following equations:

(a) Chromium(total) = [(RHF Stack $40_{CHROMIUM}$ + RHF Stack $77_{CHROMIUM}$) x RHF_{HOURS} + (SAF Stack $58_{CHROMIUM}$ x SAF_{HOURS}) + $\#79_{CHROMIUM}$ + ($IDD_{CHROMIUM\ CONSTANT}$ + $FR_{CHROMIUM\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

(b) Manganese(total) = [(RHF Stack $40_{MANGANESE}$ + RHF Stack $77_{MANGANESE}$) x RHF_{HOURS} + (SAF Stack $58_{MANGANESE}$ x SAF_{HOURS}) + $\#79_{MANGANESE}$ + ($IDD_{MANGANESE}$

$_{CONSTANT}$ + $FR_{MANGANESE\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

(c) HAPS(total) = [PL_{HAPS} + Chromium(total) + Manganese(total) ($IDD_{HAPS\ CONSTANT}$ + $FR_{HAPS\ CONSTANT}$) x (hours each month)] / 2,000 (lb/ton)

Where:

PL_{HAPS} = total haps (month) as determined in Condition D.10.7 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

RHF Stack $40_{CHROMIUM}$ = chromium emissions from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack $40_{MANGANESE}$ = manganese emissions from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack $77_{CHROMIUM}$ = chromium emissions from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack $77_{MANGANESE}$ = manganese emissions from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack $58_{CHROMIUM}$ = chromium emissions from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack $58_{MANGANESE}$ = manganese emissions from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

#$79_{CHROMIUM}$ = chromium emissions from the SAF Dust Recycling System Stack as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

#$79_{MANGANESE}$ = manganese emissions from the SAF Dust Recycling System Stack 79 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF_{HOURS} = Hours of RHF operation for the reporting month

SAF_{HOURS} = Hours of SAF operation for the reporting month

$IDD_{CHROMIUM\ CONSTANT}$ = 3.17E-03 Chromium (lb/hr)

$FR_{CHROMIUM\ CONSTANT}$ = 2.29E-03 Chromium (lb/hr)

$IDD_{MANGANESE\ CONSTANT}$ = 0.16 Manganese (lb/hr)

$FR_{MANGANESE\ CONSTANT}$ = 0.12 Manganese (lb/hr)

$IDD_{HAPS\ CONSTANT}$ = 1.15 HAPs (lb/hr)

$FR_{HAPS\ CONSTANT}$ = 0.37 HAPs (lb/hr)

Hours each month = hours in each reporting month; e.g., June (30 days x 24 hrs/day) = 720 hrs/month

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

D.0.3 Record Keeping Requirements

(a) To document the compliance status with Conditions D.0.1 – HAP Minor Limitation and D.0.2 – Hazardous Air Pollutants, the Permittee shall maintain records in accordance with (1) through (15) below. Records maintained for (1) through (15) shall be complete and sufficient to establish compliance with the emission limits established in Condition D.0.1.

(1) Calendar dates covered in the compliance determination period.

(2) Monthly records of the HAPs(total) emissions.

(3) Monthly records of the Chromium(total) emissions.

(4) Monthly records of the Manganese(total) emissions.

(5) Monthly records of the total haps emissions from the paint line.

(6) The RHF Stack $40_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(7) The RHF Stack $40_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(8) The RHF Stack $77_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(9) The RHF Stack $77_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(10) The SAF Stack $58_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(11) The SAF Stack $58_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(12) The $\#79_{CHROMIUM}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(13) The $\#79_{MANGANESE}$ value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.

(14) The RHF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

(15) The SAF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

(b) Section C.19 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.0.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.0.1 – HAP Minor Limitation shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C.19- General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

****

D.10.7 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

(a) The compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

VOC emitted = [(VOC input) x (100**%** – **Percent** Overall control efficiency of thermal oxidizer)]

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) If VOC emissions from the 2-side, 2-coat coil line exceed nine (9) tons for any twelve consecutive month period, or the Permittee chooses to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

HAP emitted = [(HAP input) x (100**%** - **Percent** Overall control efficiency of thermal oxidizer)]

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: **Steel Dynamics, Inc. - Flat Roll Division**
Source Address: **4500 County Road 59, Butler, IN 46721**
Part 70 Permit No.: **T033-30061-00043**
Facility: **Entire Source**
Parameter: **combination of HAP emissions**
Limits: **less than twenty-five (25) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis**

Quarter _____ YEAR:_____

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

☐ **No deviation occurred in this quarter.**

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: chromium emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ **YEAR:**_____

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

☐ **No deviation occurred in this quarter.**

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

Submitted by: _____
Title / Position:_____

Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: manganese emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

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: _____

Comments From Urberg Law Office, LLC and IDEM, OAQ Responses

On August 6 and 8, 2014, Urberg Law Office, LLC on behalf of Mr. Tom Keller submitted comments to IDEM, OAQ on the draft Part 70 Operating Permit Renewal.

Comment 1:

Mr. Keller, who lives in close proximity to the Permittee, has serious concerns of the impact this plant has on the air quality surrounding his residence; as such, Mr. Keller hereby requests a public hearing, or in the alternative, a public meeting, to submit written comments and be allotted an opportunity to make verbal comments.

If allowed a hearing, Mr. Keller would provide evidence documenting the air pollution impact that this plant has on his property. Mr. Keller would show the substantial pollution that results from SDI's operation near his property, affecting his air quality and quality of life. As such, Mr. Keller adamantly disagrees with the renewal of Steel Dynamics, Inc.'s permit.

Response to Comment 1:

IDEM's Office of Air Quality (OAQ) issues air pollution control permits to facilities that emit regulated levels of pollutants to the air. Permits require sources to comply with all health-based and technology-based standards established by the U.S. EPA and the Indiana Air Pollution Control Board. If an applicant demonstrates that they will be able to comply with all federal and state laws regarding air pollution, IDEM is required by law to issue the air permit. For information on how to get involved in Indiana's Environmental Rulemaking Process, please go to http://www.in.gov/idem/6155.htm

There is an IDEM, OAQ air compliance inspector assigned to this source that has and will routinely inspect SDI for compliance with each condition listed in this permit. These inspections are unannounced and there will be enforcement actions taken if SDI is found to be in violation of any conditions in their Title V Operating Permit.

OAQ is aware of the difficulties that can arise in neighborhoods which are shared by industries and homeowners. IDEM, OAQ will continue to inspect the plant to determine if the source is adequately controlling emissions and ensure compliance with its permit and Indiana regulations. Any citizen observing a possible violation of the plant's permit should immediately file a complaint with IDEM. Citizens may make a complaint about any air pollution concern by contacting the following DEM, OAQ Compliance and Enforcement Section Chief:

Janusz Johnson
Indiana Department of Environmental Management
100 North Senate Avenue
MC-61-53 IGCN 1003
Indianapolis, IN 46204-2551
Ph: 317-233-1134
email: jjohnson@idem.in.gov

by submitting a complaint online at http://www.in.gov/idem/5274.htm, by contacting IDEM's Complaint Coordinator at (800) 451-6027, extension 24464, or by sending a written complaint to IDEM, Attn: Complaint Coordinator, 100 North Senate Avenue, MC 50-03 IGCN 1313, Indianapolis, IN 46204-2251.

IDEM, OAQ's air compliance inspector will respond to any citizen complaints of visible emissions, fugitive dust, or other air pollution concern regarding the source by doing a complaint inspection. In every inspection, whether the result of a complaint or not, the IDEM, OAQ air compliance inspector will monitor

the source to determine if it is complying with the permit. The inspector prepares a written report of each inspection. Copies of inspection reports can be obtained by contacting IDEM, OAQ's Compliance and Enforcement Branch at 1-800-452-6027, ext. 3-0178.

IDEM, OAQ thanks Mr. Keller for participating in the public process by providing written comments relating to the proposed Part 70 Operating Permit Renewal. A copy of Mr. Keller's comments has been forwarded to the inspector.

IDEM has decided that a public hearing is not warranted at this time. There are no changes to the permit as a result of this public comment.

Comment 2:

The emissions from SDI's Butler, IN plant cause irreparable harm to Mr. Keller's real estate. As a farmer, Mr. Keller strongly relies on the output of his crops to provide for a comfortable living. SDI's emissions strip Mr. Keller of his rights to the quiet and peaceful enjoyment of his land as the emissions have directly affected the output of his crops. SDI's emissions have stunted the growth of Mr. Keller's crops and in some cases have altogether eliminated crops.

The emissions from SDI's Butler, IN plant cause irreparable harm to Mr. Keller's personal property due to soot, dust and other metal particles covering his personal property as exhibited in the photos provided. Within the photos you will find advanced aging through rust and other indicia of damage to Mr. Keller's personal property due to the emissions from SDI's Butler, IN plant. The emissions also affect his home by covering it in the same metal particulates.

Response to Comment 2:

Photographs provided by Mr. Keller show dirt and rust present at a farm. IDEM, OAQ has no substantial evidence that emissions from Steel Dynamics, Inc. - Flat Roll Division or Iron Dynamics Division have caused damage to crops, air conditioning units, paint, farm equipment, storage tanks, or buildings. The federal Clean Air Act requires the U.S. EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The following pollutants are regulated by NAAQS: ozone, particulate matter, carbon monoxide, sulfur dioxide, nitrogen oxides, and lead. DeKalb County is in attainment for all NAAQS, meaning the level of each of these pollutants in the ambient air is safe. Further information about NAAQs can be found at: http://www.epa.gov/ttn/naaqs/.

The source may not allow fugitive dust to travel off its property at ground level. As stated in IDEM's response to Comment 1, above, any person who believes there may be a compliance issue at the source may contact Janusz Johnson, OAQ, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251, or call at (800) 451-6027, and ask for Janusz Johnson or extension 3-1134, or dial (317) 233-1134. A copy of Mr. Keller's comments and photographs have been forwarded to the IDEM, OAQ air compliance inspector. No changes to the permit have been made as a result of this comment.

Comment 3:

The emissions from SDI's Butler, IN plant result in recognizable and potentially dangerous levels of metal within Mr. Keller's drinking water. As can be shown in the Sherry Laboratories analytical report, Mr. Keller's tap water has recognizable levels of arsenic, barium, cadmium, chromium, lead, and nickel. But for SDI's emissions, this would not be the case.

Response to Comment 3:

The National Primary Drinking Water Regulations are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water. The Maximum Contaminant Levels for drinking water are set by the U.S. EPA. These are the highest level of contaminant allowed in drinking water. The U.S. EPA lists these levels at http://water.epa.gov/drink/contaminants/ on its website. IDEM also lists these standards at http://www.in.gov/idem/5096.htm on its website. The commenter's reported levels of arsenic, barium, and cadmium are all well below the Maximum Contaminate Levels. There is no Maximum Contaminant Level for lead. Lead is regulated by a treatment technique that requires public drinking water systems to take action if the more than 10% of tap water samples exceed the action level. The lead action level is 0.015 mg/L (milligrams per liter). The commenter's highest reported level of lead was .0054 mg/L, well below the public drinking water supply action level. There is no Maximum Contaminant Level or action level for nickel. The commenter's reported sample, identified as "Tap Water", had a concentration of nickel below his laboratory's Reporting Detection Limit (RL) of .0010 mg/L. The commenter's second water sample, identified as "Dog Water Bowl" had a slightly higher reported nickel level of 0018 mg/L, None of the commenter's reported drinking water analyses would require a public water system to take any action.

This existing source is a minor source of Hazardous Air Pollutants (HAPs) as defined in 40 CFR 63.41, because its potential to emit for HAP emissions is less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. According to Part 70 Operating Permit Renewal number T033-30061-00043 and T033-30062-00076, the source's potential to emit arsenic, cadmium, chromium, lead, and nickel is 4.18 tons per year. There are no barium emissions associated with this source. This source is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subparts ZZZZ, YYYYY, and CCCCCC. HAPs not regulated by 40 CFR 63, Subparts ZZZZ, YYYYY, and CCCCCC are limited by 40 CFR 63, Subpart A. All HAP emissions from this source are regulated by the terms of this permit to be limited to levels that will not constitute a threat to human health or the environment. Further information about HAPs can be found at: http://www.epa.gov/ttn/atw/index.html. No changes to the permit have been made as a result of this comment.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below.

(a) The HAP calculations for the EAFs have been revised since uncontrolled potential to emit cannot reasonably be calculated. AP-42 only provides controlled emission factors and neither AP-42 nor the background document provide any data on control efficiency. The only information provided was that the units were controlled by a direct shell evacuation and roof canopy hood exhausted to a baghouse. This is the same control configuration present at SDI. The PM/PM10 BACT gr/dscf and lb/hr limits, the BACT capture efficiency limit, and the BACT PM/PM10 control efficiency limit in conjunction with the controlled emissions based on AP-42 are sufficient to ensure the source is an area source for HAPs. No additional limitations are required. The revised calculations are included as Appendix A to this ATSD.

IDEM Contact

(a) Questions regarding this proposed Part 70 Operating Permit Renewal can be directed to Kristen Willoughby 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) 233-3031 or toll free at 1-800-451-6027 extension 3-3031.

(b) A copy of the permit 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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby
Date: January 31, 2011

Potential to Emit (ton/yr)											
Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	CO_2e	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	103294.86	298407.38	>100	>100	>100	>100	>100	NA	565.90	-	0.19
Ladle Metallurgical Stations	2402.74	2402.74	245.28	61.32	42.05	5.78	43.80	NA	-	-	-
Combustion	4.83	19.30	19.30	1.52	370.99	13.97	213.32	306,556	1.27E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	600	-	-	-
Storage Silo 5c	45.05	45.05	45.05	-	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	659.34	659.34	659.34	-	-	-	-	-	-	-	-
Reversing Mill	3153.60	3153.60	3153.60	-	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	39,395	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	109561.40	304690.10	4125.25	63.22	457.28	3917.58	287.62	346,551	565.90	0.00	0.44
Steel Dynamics, Inc. - IDD	14,592.16	17,067.92	17,066.88	422.15	553.37	1,830.23	670.57	36,744	0.66	0.14	-
Total	124,153.56	321,758.02	21,192.13	485.37	1,010.65	5,747.81	958.19	383,295	566.56	0.14	0.44

Potential to Emit After Issuance (ton/yr)											
Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	CO_2e	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	155.05	447.64	>100	350.40	893.52	227.76	3,504.00	NA	0.83	-	0.10
Ladle Metallurgical Stations	24.05	24.05	245.28		43.80	14.37	175.20	NA	-	-	-
Combustion	4.66	18.63	19.30	1.47	363.89	13.49	205.96	295,981	1.23E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	600	-	-	-
Storage Silo 5c	0.45	0.45	45.05	-	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	6.59	6.59	659.34	-	-	-	-	-	-	-	-
Reversing Mill	31.54	31.54	3153.60	-	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	38.96	0.27	39,395	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	223.32	531.58	4,125.25	352.25	1,345.45	296.56	3,888.52	335,977	0.84	0.00	0.35
Steel Dynamics, Inc. - IDD	>100	>100	>100	>100	>100	>100	>100	36,744	0.29	0.04	-
Total	>100	>100	>100	>100	>100	>100	>100	>100,000	1.13	0.04	0.35

The "Potential to Emit After Issuance Table" only includes limits if they are federally enforcable in the permit. Otherwise it inlcudes uncontrolled potential emissions.

Total Potential HAPs	(tons/yr)
Iron Dynamics Division	93.54
Flat Roll Division	1470.66
Steel Dynamics, Inc. Total	1564.20

Total Limited HAPs	(tons/yr)
Iron Dynamics Division	7.83
Flat Roll Division	16.80
Steel Dynamics, Inc. Total	24.63

Single Potential HAP - Glycol Ethers	(tons/yr)
Iron Dynamics Division	-
Flat Roll Division	6.36
Steel Dynamics, Inc. Total	6.36

NA - This data was not needed for rule applicability determination.

The above tables do not reflect the total source wide emissions. They are only the sum of the units that were calculated for CAM and source wide HAP applicability determinations.

Appendix A: Emission Calculations
Limited HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00076
Reviewer: Kristen Willoughby
Date: January 31, 2011

	Emission Source							
Pollutant	**EAF (ton/yr)**	**Combustion (ton/yr)**	**Emergency Generators (ton/yr)**	**Cold Mill Operations - Pickle Line (ton/yr)**	**Surface Coating (ton/yr)**	**EAF Dust Silo 5c (ton/yr)**	****Fuel Dispensing Operation (ton/yr)**	**Total Facility (ton/yr)**
Acetaldehyde	---	---	9.14E-05	---	---	---	---	9.1E-05
Acrolein	---	---	2.86E-05	---	---	---	---	2.9E-05
Benzene	---	5.15E-03	2.81E-03	---	6.85E-04	---	---	8.6E-03
Dichlorobenzene	---	2.94E-03	---	---	3.92E-04	---	---	3.3E-03
Ethyl Benzene	---	---	---	---	0.48	---	---	4.8E-01
Formaldehyde	---	0.18	2.86E-04	---	0.03	---	---	2.1E-01
Glycol Ethers*	---	---	---	---	6.36	---	---	6.4E+00
Hexane	---	---	---	---	---	---	---	0.0E+00
Isophorone	---	---	---	---	0.49	---	---	4.9E-01
Naphthalene	---	1.50E-03	---	---	0.92	---	---	9.2E-01
Toluene	---	8.34E-03	1.02E-03	---	1.11E-03	---	---	1.0E-02
1,2,4-Trimethylbenzene	---	---	---	---	4.56	---	---	4.6E+00
Xylene	---	---	7.00E-04	---	1.88	---	---	1.9E+00
Arsenic	1.09E-02	---	---	---	---	3.16E-05	---	1.1E-02
Beryllium	4.91E-04	---	---	---	---	1.43E-06	---	4.9E-04
Cadmium	8.76E-03	2.70E-03	---	---	3.59E-04	2.55E-05	---	1.2E-02
Chromium	6.13E-03	3.43E-03	---	---	4.57E-04	1.78E-05	---	1.0E-02
Hydrochloric Acid	---	---	---	1.40	---	---	---	1.4E+00
Manganese	5.26E-01	9.32E-04	---	---	1.24E-04	1.53E-03	---	5.3E-01
Nickel	9.64E-03	5.15E-03	---	---	6.85E-04	2.80E-05	---	1.5E-02
PAH/POM	---	---	7.69E-04	---	---	---	---	7.7E-04
Totals (ton/yr)	0.56	0.21	0.01	1.40	14.60	1.63E-03	0.01	**16.80**

*Largest individual HAP.
**Speciated HAP emission are not available for this operation only total.
***The total HAP emissions from the surface coating is based on the permit limit.

Appendix A: Emission Calculations
Unlimited HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00076
Reviewer: Kristen Willoughby
Date: January 31, 2011

Pollutant	Emission Source							
	EAF (ton/yr)	Combustion (ton/yr)	Insignificant Activity Combustion (ton/yr)	**Cold Mill Operations - Pickle Line (ton/yr)	Surface Coating (ton/yr)	EAF Dust Silo 5c (ton/yr)	***Fuel Dispensing Operation (ton/yr)	Total Facility (ton/yr)
Acetaldehyde	---	---	9.14E-05	---	---	---	---	9.1E-05
Acrolein	---	---	2.86E-05	---	---	---	---	2.9E-05
Benzene	---	5.33E-03	2.81E-03	---	6.85E-04	---	---	8.8E-03
Dichlorobenzene	---	3.05E-03	---	---	3.92E-04	---	---	3.4E-03
Ethyl Benzene	---	---	---	---	48.18	---	---	4.8E+01
Formaldehyde	---	0.19	2.86E-04	---	0.58	---	---	7.7E-01
Glycol Ethers*	---	---	---	---	635.91	---	---	6.4E+02
Isophorone	---	---	---	---	48.54	---	---	4.9E+01
Naphthalene	---	1.55E-03	---	---	91.87	---	---	9.2E+01
Toluene	---	8.63E-03	1.02E-03	---	1.11E-03	---	---	1.1E-02
1,2,4-Trimethylbenzene	---	---	---	---	455.77	---	---	4.6E+02
Xylene	---	---	7.00E-04	---	187.60	---	---	1.9E+02
Arsenic	1.09E-02	---	---	---	---	3.16E-05	---	1.1E-02
Beryllium	4.91E-04	---	---	---	---	1.43E-06	---	4.9E-04
Cadmium	8.76E-03	2.79E-03	---	---	3.59E-04	2.55E-05	---	1.2E-02
Chromium	6.13E-03	3.56E-03	---	---	4.57E-04	1.78E-05	---	1.0E-02
Hydrochloric Acid	---	---	---	1.40	---	---	---	1.4E+00
Manganese	5.26E-01	9.65E-04	---	---	1.24E-04	1.53E-03	---	5.3E-01
Nickel	9.64E-03	5.33E-03	---	---	6.85E-04	2.80E-05	---	1.6E-02
PAH/POM	---	---	7.69E-04	---	---	---	---	7.7E-04
Totals (ton/yr)	0.56	0.22	0.01	1.40	1468.45	0.00	0.01	**1470.66**

*Largest individual HAP.
**These are limited values. There are no uncontrolled emission calculations for this operation.
***Speciated HAP emission are not avaliable for this operaiton only total.

Appendix A: Emission Calculations
Electric Arc Furnaces (EAF)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

			Pollutant									
			SO2	NO_x	VOC	CO	Pb	HG	Pb	HG	Pb	HG
Limited Emission Factor (lb/ton)			0.2	0.51	0.13	2.0	0.323	1.10E-04	Controlled Emissions	Controlled Emissions	Limited Emissions	Limited Emissions
Unit	Throughput	Control Efficiency	Potential Emission (tons/yr)									
	(tons/hr)	(%)							(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
EAF #1 South	200	99.85%	175.2	446.76	113.88	1,752.0	282.95	0.10	0.42	0.10	0.83	0.10
EAF #2 North	200	99.85%	175.2	446.76	113.88	1,752.0	282.95	0.10	0.42			
		Total	**350.4**	**893.52**	**227.76**	**3,504.0**	**565.90**	**0.19**	**0.85**	**0.10**	**0.83**	**0.10**

Methodology:

Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

Unit	Flow Rate	PM outlet Grain loading	PM10 outlet Grain loading	Control Efficiency	Uncontrolled PM	Uncontrolled PM10	Controlled PM	Controlled PM10	Limited PM	Limited PM10
	(dscfm)	(gr/dscf)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
EAF #1 South	1,300,000	0.0018	0.0052	99.85%	58,566.86	169,193.14	9.11	41.61	88.038	253.60
EAF #2 North	992,821	0.0018	0.0052	99.85%	44,728.00	129,214.23	8.76	30.53	67.014	194.03
				Total	**103,294.86**	**298,407.38**	**17.87**	**72.14**	**155.05**	**447.64**

Methodology:

Controlled Emissions (ton/yr) are based on test data from 7/27/2010

Uncontrolled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb / (1- Control Efficiency (%))

		Pollutant					
		Arsenic	Beryllium	Cadmium	Chromium	Manganese	Nickel
Limited Emission Factor (lb/ton)		6.20E-06	2.80E-07	5.00E-06	3.50E-06	3.00E-04	5.50E-06
Unit	Throughput	Controlled Potential Emission (tons/yr)					
	(tons/hr)						
EAF #1 South	200	5.43E-03	2.45E-04	4.38E-03	3.07E-03	2.63E-01	4.82E-03
EAF #2 North	200	5.43E-03	2.45E-04	4.38E-03	3.07E-03	2.63E-01	4.82E-03
Total		**1.09E-02**	**4.91E-04**	**8.76E-03**	**6.13E-03**	**5.26E-01**	**9.64E-03**

Methodology:

Uncontrolled Potential to Emit cannot be calculated because AP-42 only provides controlled emission factors and does not provide the control efficiency.

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: There is an AP-42 emission factor for Fluoride which was not included here because this source does not use Fluorspar which is the source of the Fluoride emissions at other mini-mills.

Appendix A: Emission Calculations
Ladle Metallurgical Stations (LMS)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Stack Test Data - Controlled Emissions		
Year	Pollutant	
	PM/PM10	
	(lb/hr)	(ton/yr)
2008		
Run 1	1.24	5.45
Run 2	0.23	1.02
Run 3	0.22	0.98
Average of 3 runs	0.57	**2.48**

Unit	Flow Rate	PM/PM10 outlet Grain loading	Control Efficiency	Controlled PM/PM10	Uncontrolled PM/PM10	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Ladle Metallurgical Stations (LMS)	200,000	0.0032	99%	24.03	2,402.74	24.05
			Total	**24.03**	**2,402.74**	**24.05**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Steel Dynamics, Inc. - Flat Roll Division

Butler, IN

Ladle Metallurgical Stations (LMS) Continued

T033-30061-00043

		Pollutant				
		PM2.5	SO2	NO_x	VOC	CO
Emission Factor (lb/ton)		0.14	0.035	0.024	0.0033	0.025
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (South)	200	122.64	30.66	21.02	2.89	21.90
Ladle Metallurgical Station (North)	200	122.64	30.66	21.02	2.89	21.90
	Total	**245.28**	**61.32**	**42.05**	**5.78**	**43.80**

Methodology:

Emission Factors from AP-42 Chapter 12.5.1.

Potential Emissions (ton/yr) = Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

		Pollutant				
		PM2.5	SO2	NO_x	VOC	CO
Limited Emission Factor (lb/ton)		NA	**	0.025	0.0082	0.100
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (Total)	400	--	**	43.80	14.37	175.20
	Total	**--**	******	**43.80**	**14.37**	**175.20**

**Limited SO2 emissions are combined with the EAF limited emissions.

Methodology:

Limited Emission Factors from permit.

Limited Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Appendix A: Emission Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

*NO_X Manufacturer Guarantee Emission Factors	*NOx PSD Permit Limits		
	(lb/MMBtu)		(lb/MMCF)
	0.17	0.1	200
(lb/MMCF)	Tunnel Furnace #1	Tunnel Furnace # 2	Galv 1 - Preheat & Radiant
81			Galv 2- Preheat & Radiant
Pickle Line Boilers			Annealing Furnaces

			Pollutant						
			PM**	PM10**	PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	7.6	0.6	100.0	5.5	84.0
							**see below		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)						
Tunnel Furnace No. 1	117.9	1012.553	0.962	3.848	3.848	0.304	87.788	2.785	42.527
Tunnel Furnace No. 2	92	790.118	0.751	3.002	3.002	0.237	40.296	2.173	33.185
Ladle Preheaters (5)	50	429.412	0.408	1.632	1.632	0.129	21.471	1.181	18.035
Ladle Dryout (2)	20	171.765	0.163	0.653	0.653	0.052	8.588	0.472	7.214
Tundish Dryers (3)	4.5	38.647	0.037	0.147	0.147	0.012	1.932	0.106	1.623
Tundish Preheaters (2)	18.8	161.459	0.153	0.614	0.614	0.048	8.073	0.444	6.781
Hot Band Galvanizing Line (Galv 1)*	54.5	468.059	0.445	1.779	1.779	0.140	46.806	1.287	19.658
Hot Band Galvanizing Line (Galv 1)	31.2	267.953	0.255	1.018	1.018	0.080	13.398	0.737	11.254
Cold Rolled Galvanizing Line (Galv 2)*	77.3	663.871	0.631	2.523	2.523	0.199	66.387	1.826	27.883
Annealing Furnaces (16)	64	549.647	0.522	2.089	2.089	0.165	54.965	1.512	23.085
Pickle Line Boiler No. 1*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Pickle Line Boiler No. 2*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Pickle Line Boiler No. 3*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Total Unlimited			4.83	19.30	19.30	1.52	370.99	13.97	213.32
Total Limited***			4.66	18.63	18.63	1.47	363.89	13.49	205.96

**PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
*** Total Limited Emissions based on PSD limit that only 2 of the 3 Pickle Line Boilers can be in operation at a time.

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Natural Gas Combustion (Less than 100 MMBtu/hr) Continued

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			HAPs - Organics				
			Benzene	Dichlorobenzene	Formaldehyde	Naphthalene	Toluene
	Emission Factor in lb/MMCF		2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
Tunnel Furnace (heating zone)	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Tunnel Furnace (holding zone)	25.9	222.435	2.3E-04	1.3E-04	8.3E-03	6.8E-05	3.8E-04
Tunnel Furnace	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Ladle Preheaters (5)	50	429.412	4.5E-04	2.6E-04	1.6E-02	1.3E-04	7.3E-04
Ladle Dryout (2)	20	171.765	1.8E-04	1.0E-04	6.4E-03	5.2E-05	2.9E-04
Tundish Dryers (3)	4.5	38.647	4.1E-05	2.3E-05	1.4E-03	1.2E-05	6.6E-05
Tundish Preheaters (2)	18.8	161.459	1.7E-04	9.7E-05	6.1E-03	4.9E-05	2.7E-04
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	7.7E-04	4.4E-04	2.8E-02	2.2E-04	1.3E-03
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	7.0E-04	4.0E-04	2.5E-02	2.0E-04	1.1E-03
Annealing Furnaces (16)	64	549.647	5.8E-04	3.3E-04	2.1E-02	1.7E-04	9.3E-04
Pickle Line Boiler No. 1	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 2	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 3	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Total Unlimited			5.3E-03	3.0E-03	1.9E-01	1.5E-03	8.6E-03
Total Limited			5.1E-03	2.9E-03	1.8E-01	1.5E-03	8.3E-03

			HAPs - Metals					
			Lead*	Cadmium	Chromium	Manganese	Nickel	**Total HAPs (Organics+Metals)**
	Emission Factor in lb/MMCF		5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Tunnel Furnace (heating zone)	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Tunnel Furnace (holding zone)	25.9	222.435	5.6E-05	1.2E-04	1.6E-04	4.2E-05	2.3E-04	9.7E-03
Tunnel Furnace	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Ladle Preheaters (5)	50	429.412	1.1E-04	2.4E-04	3.0E-04	8.2E-05	4.5E-04	1.9E-02
Ladle Dryout (2)	20	171.765	4.3E-05	9.4E-05	1.2E-04	3.3E-05	1.8E-04	7.5E-03
Tundish Dryers (3)	4.5	38.647	9.7E-06	2.1E-05	2.7E-05	7.3E-06	4.1E-05	1.7E-03
Tundish Preheaters (2)	18.8	161.459	4.0E-05	8.9E-05	1.1E-04	3.1E-05	1.7E-04	7.0E-03
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	1.8E-04	4.0E-04	5.2E-04	1.4E-04	7.7E-04	3.2E-02
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	1.7E-04	3.7E-04	4.6E-04	1.3E-04	7.0E-04	2.9E-02
Annealing Furnaces (16)	64	549.647	1.4E-04	3.0E-04	3.8E-04	1.0E-04	5.8E-04	2.4E-02
Pickle Line Boiler No. 1	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 2	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 3	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Total Unlimited			1.3E-03	2.8E-03	3.6E-03	9.7E-04	5.3E-03	2.2E-01
Total Limited			1.2E-03	2.7E-03	3.4E-03	9.3E-04	5.1E-03	2.1E-01

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.
Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Natural Gas Combustion (Less than 100 MMBtu/hr) Continued

T033-30061-00043

			Greenhouse Gas				
			CO2	CH4	N2O	GHG	CO2e
Emission Factor in lb/MMcf			120000	2.3	2.2		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emission (tons/yr)			Summed PTE (tons/yr)	Total (tons/yr)
Tunnel Furnace (heating zone)	92	790.118	47,407.06	0.91	0.87	47,409	47,689
Tunnel Furnace (holding zone)	25.9	222.435	13,346.12	0.26	0.24	13,347	13,425
Tunnel Furnace	92	790.118	47,407.06	0.91	0.87	47,409	47,689
Ladle Preheaters (5)	50	429.412	25,764.71	0.49	0.47	25,766	25,918
Ladle Dryout (2)	20	171.765	10,305.88	0.20	0.19	10,306	10,367
Tundish Dryers (3)	4.5	38.647	2,318.82	0.04	0.04	2,319	2,333
Tundish Preheaters (2)	18.8	161.459	9,687.53	0.19	0.18	9,688	9,745
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	44,160.71	0.85	0.81	44,162	44,423
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	39,832.24	0.76	0.73	39,834	40,069
Annealing Furnaces (16)	64	549.647	32,978.82	0.63	0.60	32,980	33,175
Pickle Line Boiler No. 1	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Pickle Line Boiler No. 2	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Pickle Line Boiler No. 3	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Total Unlimited			304,744.94	5.84	5.59	304,756	306,556
Total Limited			294,232.94	5.64	5.39	294,244	295,981

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 (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emission Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Emergency Diesel Generators

Company Name: Steel Dynamics, Inc. - Iron Dynamics Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30062-00076
Plant ID: 033-00076
Reviewer: Kristen Willoughby

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (Kw/hr)	4250.00
Heat Input Capacity (MMBtu/hr)	14.5
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	7,251
Sulfur Content (S) of Fuel (% by weight)	0.050

750	Kw/hr	CM Watertreat
1500	Kw/hr	Main Watertreat (East)
1500	Kw/hr	Main Watertreat (West)
500	Kw/hr	Melt Shop (Door 26)
4250	Kw/hr	Total

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.10	0.0573	0.0556	0.051 *(1.01S)*	3.2 **see below	0.09	0.85
Potential Emission in tons/yr	0.36	0.21	0.20	0.18	11.60	0.33	3.08

*PM emission factor is from AP-42 Section 3.4, Table 3.4-1. The emission factors for PM10 and PM2.5 are from AP-42 Section 3.4, Table 3.4-2. The PM10 emission factor is the sum of filterable PM10 and condensable particulate. The PM2.5 emission factor is the sum of filterable particulate less than 3 um and condensable particulate.
**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Potential Emission in tons/yr	2.81E-03	1.02E-03	7.00E-04	2.86E-04	9.14E-05	2.86E-05	7.69E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr)	**5.71E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu	1.65E+02	8.10E-03	1.32E-03
Potential Emission in tons/yr	5.98E+02	2.94E-02	4.80E-03

Summed Potential Emissions in tons/yr	**5.98E+02**
CO2e Total in tons/yr	**6.00E+02**

Methodology
1 Kw-hr = 0.003412142 MMBtu/hr
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emission Calculations
Coll Mill Operations - Pickling Line

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

$$Q_{std} = \frac{Q_a P_s (17.64)(1-B_{wo})}{T_s + 460}$$

Where:
Q_{std} = volumetric flow rate at dry, standard conditions
Q_a = Absolute stack gas pressure (29.12 in Hg)
P_s = Stack gas moisture, % (12)
B_{wo} = Average absolute stack gas temperature (120°F)
17.64 = conversion factor (530°R / 30.04 in Hg)

$$Q_{std} = \frac{(17{,}630\ ft^3/min)(29.12)(17.64)(1-0.09)}{(113 + 460)} = 14{,}382.32 \text{ dscfm}$$

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
Pickling Line	14,382	0.01	99%	5.40	539.95
Pickling Line Scale Breaker	10,600	0.003	99%	1.19	119.39
Total				**6.59**	**659.34**

HCL: From vendor, the emission rate is 0.04 g/sec. This is equivalent to 0.32 lb/hr and 1.4 tpy. Stack tests have shown compliance with these guarantees.

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Appendix A: Emission Calculations
Reversing Mill

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Reversing Mill	84,000	0.01	99%	31.54	3,153.60	31.54
			Total	**31.54**	**3,153.60**	**31.54**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations
VOC
From Surface Coating Operations

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

2-side, 2-coat coil coating line
Potential to Emit before Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	270.00	6480.03	1182.61
Poly-White	739922	3.55	299.85	7196.50	1313.36
Poly-Color	369961	3.63	153.31	3679.34	671.48
SMP-White	221977	3.89	98.57	2365.73	431.75
SMP-Color	73992	3.82	32.27	774.38	141.32
Kynar-White	44395	3.99	20.22	485.30	88.57
Kynar-Color	29597	4.39	14.83	355.97	64.97

Potential to Emit VOC emissions before control **3894.05** **tons per year**

Control efficiency of the thermal oxidizer = 99%
Potential to Emit after Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	2.70	64.80	11.83
Poly-White	739922	3.55	3.00	71.97	13.13
Poly-Color	369961	3.63	1.53	36.79	6.71
SMP-White	221977	3.89	0.99	23.66	4.32
SMP-Color	73992	3.82	0.32	7.74	1.41
Kynar-White	44395	3.99	0.20	4.85	0.89
Kynar-Color	29597	4.39	0.15	3.56	0.65

Potential to Emit VOC emissions after control **38.94** **tons per year**

Pounds of VOC per gallon of Solids = Pounds of VOC per Gallon coating (lb/gal)/[1-(Pounds of VOC per Gallon coating (lb/gal)/7.36 (density of VOC)]
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations
HAPs
From Surface Coating Operations

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Material		Density (Lb/Gal)	Gallons of Material (gal/year)	Weight % Xylene	Weight % 2,4-Trimethylbenze	Weight % Ethylbenzene	Weight % Naphthalene	Weight % Isophorone	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	1,2,4-Trimethylbenzene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Isophorone Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	
Primer	45Y54	11.44	637,523	4.20%	3.40%	1.00%	1.20%	0.00%	5.70%	0.00%	153.16	123.99	36.47	43.76	0.00	207.86	0.00	
Finishing	Poly-White	11.51	739,922	0.00%	6.29%	0.00%	0.00%	0.00%	5.44%	0.00%	0.00	267.84	0.00	0.00	0.00	231.65	0.00	
Finishing	Poly-Color	9.35	369,961	0.00%	0.00%	0.30%	2.20%	0.00%	0.00%	0.00%	0.00	0.00	5.19	38.05	0.00	0.00	0.00	
Finishing	SMP-White	10.42	221,977	1.03%	4.74%	0.14%	0.00%	0.00%	13.51%	0.00%	11.91	54.82	1.62	0.00	0.00	156.24	0.00	
Finishing	SMP-Color	9.48	73,992	1.10%	2.60%	0.30%	2.00%	0.00%	1.90%	0.00%	3.86	9.12	1.05	7.01	0.00	6.66	0.00	
Finishing	Kynar-White	11.51	44,395	6.44%	0.00%	1.51%	0.00%	19.00%	4.50%	0.00%	16.45	0.00	3.86	0.00	48.54	11.50	0.00	
Finishing	Kynar-Color	9.35	29,597	1.60%	0.00%	0.00%	2.20%	0.00%	15.90%	0.40%	2.21	0.00	0.00	3.04	0.00	22.00	0.55	
																		Total HAPs
										Total Potential Emissions	**187.60**	**455.77**	**48.18**	**91.87**	**48.54**	**635.91**	**0.55**	**1468.42**
										Controlled Emissions	**1.88**	**4.56**	**0.48**	**0.92**	**0.49**	**6.36**	**0.01**	**14.68**
										Limited Emissions								**0.00**

METHODOLOGY
Control Efficiency = 99% per SSM No. 033-15836-00043
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Two curing ovens with a combined 16 MMBtu/hr and one 60 MMBtu/hr Thermal Oxidizer

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Part 70 Operating Permit Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
76.0	652.7

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.6	2.5	2.5	0.2	32.6	1.8	27.4
Controlled Emission in tons/yr	0.6	2.5	2.5	0.2	32.6	0.02	0.27
(Control Efficiency)						(99%)	(99%)

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Curing ovens and thermal oxidizer are controlled for VOC and CO.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Naphthalene	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
Potential Emission in tons/yr	6.853E-04	3.916E-04	2.448E-02	1.991E-04	1.110E-03

	HAPs - Metals				
	Lead*	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.632E-04	3.590E-04	4.569E-04	1.240E-04	6.853E-04

Total **0.03**

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.
Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Surface Coating Combustion Continued

T033-30061-00043

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	39,162	0.75	0.72
Summed Potential Emissions in tons/yr	39,164		
CO2e Total in tons/yr	39,395		

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 (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Summary	Pollutant							
Uncontrolled	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	39,395

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Summary	Pollutant							
Limited	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	38.96	0.27	39,395

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

HAPs	Uncontrolled	Controlled	Limited
	tpy	tpy	tpy
1,2,4-Trimethylbenzen	455.77	4.56	4.56
ethylbenzene	48.18	0.48	0.48
Xylene	187.60	1.88	1.88
Naphthalene	91.87	0.92	0.92
Glycol Ethers	635.91	6.36	6.36
Formaldehyde	0.58	0.03	0.03
Isophorone	48.54	0.49	0.49
Benzene	6.853E-04	6.85E-04	6.85E-04
Dichlorobenzene	3.916E-04	3.92E-04	3.92E-04
Toluene	1.110E-03	1.11E-03	1.11E-03
Lead	1.632E-04	1.63E-04	1.63E-04
Cadmium	3.590E-04	3.59E-04	3.59E-04
Chromium	4.569E-04	4.57E-04	4.57E-04
Manganese	1.240E-04	1.24E-04	1.24E-04
Nickel	6.853E-04	6.85E-04	6.85E-04
Total	**1468.45**	**14.71**	**14.60**

Appendix A: Emission Calculations
Storage Silos

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
EAF Dust Silo 5c	1,200	0.01	99%	0.45	45.05
			Total	**0.45**	**45.05**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

HAP Emissions (tpy)				
Pollutant	**EF (HAP Fraction of Total PM)**	**EF (lb/ton)**	**Uncontrolled**	**Controlled**
Lead*	--	0.323	0.01	7.28E-05
Arsenic	7.01E-05	--	3.16E-03	3.16E-05
Beryllium	3.16E-06	--	1.43E-04	1.43E-06
Cadmium	5.65E-05	--	2.55E-03	2.55E-05
Chromium	3.95E-05	--	1.78E-03	1.78E-05
Manganese	3.39E-03	--	0.15	1.53E-03
Mercury*	5.60E-03	--	0.25	2.52E-03
Nickel	6.21E-05	--	2.80E-03	2.80E-05
			0.16	**1.63E-03**

NA = not avaliable

Methodology

Uncontrolled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 Before Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 Before Control (tpy)

Controlled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 After Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 After Control (tpy)

EF (% of Total PM) = HAP Emission (tpy) / PM Emissions (tpy)

*Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

Appendix A: Emissions Calculations
Fuel Dispensing Operations
Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby

1.0 Fuel Dispensing Operations PTE

> This worksheet documents potential VOC and HAP emissions from storage tanks and vehicle refueling associated with the gasoline dispensing operation at the Butler Facility.

1.1 Storage Tanks Uncontrolled PTE

> Potential VOC and HAP emissions are quantified using EPA's TANKS v4.0.9d program for calculating loading and standing losses from storage tanks.

EUID	Emission Unit Description	Volume (gal)	Max Annual Throughput (gal/yr)	TANKS v4.0.9d VOC Emissions (lb/yr)	TANKS v4.0.9d VOC Emissions (tpy)	TANKS v4.0.9d HAP Emissions (lb/yr)	TANKS v4.0.9d HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	2,000	50,000	986.50	0.49	12.04	0.01
T1	Diesel Storage Tank #1	2,000	33,333	0.74	3.70E-04	0.06	3.00E-05
T3	Gasoline Storage Tank #3	5,000	33,333	1,361.52	6.81E-01	0.10	5.00E-05
T4	Diesel Storage Tank #4	5,000	33,333	1.13	5.65E-04	0.10	5.00E-05

1.2 Vehicle Refueling Uncontrolled PTE

> Potential VOC emissions from vehicle refueling with gasoline are based on AP-42, Table 5.2-7 emission factors for evaporative emissions from gasoline service station operations.

> Potential VOC emissions from vehicle refueling with diesel are based on the AP-42, Table 5.2-1 saturation factor for calculating petroleum liquid loading losses (splash loading assumed) and the following equation from AP-42, Section 5.2:
Loading Loss (lb/Mgal) = 12.46 * Saturation Factor * True Vapor Pressure at 60°F (psia) * Vapor Molecular Weight (lb/lb-mole) / Bulk Liquid Temperature (°R)

> Diesel true vapor pressure at 60°F and vapor molecular weight per AP-42, Table 7.1-2.

> Bulk liquid temperature of diesel assumed. Temperature in °R calculated based on the following equation:
Bulk Liquid Temperature (°R) = Bulk Liquid Temperature (°F) + 460

> Annual HAP emissions for vehicle gasoline and diesel refueling estimated based on ratio of HAP to VOC emissions for Gasoline Tank #1 and Diesel Tank #1, respectively.

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	VOC Displacement Losses (lb/Mgal)	VOC Spillage Losses (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)	Basis
F2, F3	Gasoline Dispensing	83	11.00	0.70	0.49	5.95E-03	AP-42, Table 5.2-7, Vehicle Refueling Operations (Stage II)

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	Saturation Factor	True Vapor Pressure at 60°F (psia)	Vapor Molecular Weight (lb/lb-mole)	Bulk Liquid Temperature (°F)	Bulk Liquid Temperature (°R)	Loading Loss (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
F1, F4	Diesel Dispensing	67	1.45	0.0065	130	60	520	0.03	9.79E-04	7.93E-05

1.3 Project PTE Summary

> Total VOC and HAP emissions from the project are summarized below.

EUID	Emission Unit Description	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	0.49	0.01
T1	Diesel Storage Tank #1	3.70E-04	3.00E-05
T3	Diesel Storage Tank #3	6.81E-01	5.00E-05
T4	Diesel Storage Tank #4	5.65E-04	5.00E-05
F2, F3	Gasoline Dispensing	0.49	5.95E-03
F1, F4	Diesel Dispensing	9.79E-04	7.93E-05
	Total PTE (tpy):	1.66	0.01

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:	**Steel Dynamics, Inc. - Flat Roll Division**
Source Location:	**4500 County Road 59, Butler, IN 46721**
County:	**Dekalb**
SIC Code:	**3312**
Permit Renewal No.:	**T033-30061-00043**
Permit Reviewer:	**Kristen Willoughby**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Steel Dynamics, Inc. - Flat Roll Division relating to the operation of a stationary steel minimill. On December 28, 2010, Steel Dynamics, Inc. - Flat Roll Division submitted an application to the OAQ requesting to renew its operating permit. Steel Dynamics, Inc. - Flat Roll Division was issued a Part 70 Operating Permit T033-8068-00043 on October 4, 2006.

Source Definition

The source consists of:

(a) Steel Dynamics, Inc. - Flat Roll Division (SDI-Flat Roll), located at 4500 County Road 59, Butler, Indiana 46721; and

(b) Steel Dynamics, Inc. - Iron Dynamics Division (SDI-IDD), located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033-00043) and Steel Dynamics, Inc. - Iron Dynamics Division (033-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. - Flat Roll Division, the primary operation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

Melt Shop Operations

(a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

(1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour**,** permitted in 1994 for construction;

(2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 and one (1) permitted in 1995 for construction;

(3) Three (3) natural gas fired tundish ladle dryers with a nominal heat input capacity of 1.5 MMBtu per hour each, one (1) permitted in 1994 and two (2) permitted in 1995 for construction;

(4) Two (2) natural gas-fired tundish preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and

(5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

(1) Twenty - one (21) storage silos including the following:

(A) Three (3) EAF dust silos consisting of:

(i) Bin vent 5a for particulate matter control permitted in 1994 for construction,

(ii) Bin vent 5b for particulate matter control permitted in 1997 for construction and

(iii) Bin vent 5c for particulate matter control, permitted in 2007 for construction.

(B) Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and

(C) Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.

(D) Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.

(E) One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through Stack 46.

(F) One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.

(G) Six (6) Lime/carbon silos, permitted in 1995 for construction, with three (3) silos routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.

(2) Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.

(e) Slag pit digouts associated with each electric arc furnace.

(f) Melt shop building openings, dust handling system and melt shop roof monitors.

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in 2013 for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

(a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.

(b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.

(c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

Hot Mill Operations - Tunnel Furnaces

(a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NOx burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.

(b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NOx burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

Cold Mill Operations – Pickling Line

One (1) pickling line, with a nominal capacity of 1.4 million ton per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.

Pickle Line Scale Breaker

One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Pickle Line Boilers

Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.

Reversing Mill

One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.

Galvanizing Lines

(a) One (1) hot band galvanizing line with a nominal capacity of 400,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 45 MMBtu per hour, exhausting through Stack 19.

(b) Twenty-four (24), natural gas fired radiant tube heaters associated with the galvanizing line, permitted in 2002 for construction. Each heater has a nominal heat input of 0.3 MMBtu per hour, exhausting inside the building.

(c) One (1) cold rolled galvanizing line with a nominal capacity of 300,000 tons of steel per year, permitted in 1996 for construction, heated by a low NOx burner natural gas fired heater with a nominal heat input of 55 MMBtu per hour, exhausting to Stack 19.

Annealing Furnaces

Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

Paint Line (Coil Coating Line)

(a) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour name plate rated heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

(b) Two (2) curing ovens, permitted in 2002 for construction, with a combined nominal heat input capacity of 16 MMBtu per hour using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

(a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;

(b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(e) One (1) 30" conveyor (#6), with a nominal capacity of 100 tons per hour, permitted in 1994 for construction;

(f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;

(h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

(j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;

(k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;

(l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;

(n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;

(o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;

(p) One (1) jaw crusher, with a nominal capacity of 100 tons per hour, permitted in 2003 for construction, and

(q) Aggregate Storage Piles.

(r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from parts of the slag handling operations are controlled as needed by water sprays.

Fugitive Dust Sources

(a) Paved roads,

(b) Parking areas,

(c) Unpaved roads, and

(d) Traveled open areas.

Emergency Generators

(a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

Insignificant Activities

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

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-2-4]

(1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

(b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower. [40 CFR 63, Subpart ZZZZ]

(1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw (670 hp). [40 CFR 60, Subpart IIII]

(c) 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. This facility includes the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

(d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]

(1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.

(2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

The source also consists of the following insignificant activities:

(a) Combustion source flame safety purging on startup.

(b) Fuel dispensing activities, including the following:

(1) 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. This facility includes: Two (2) gasoline dispensing operations, approved in 2013 for construction, identified as T2 and T3.

(2) 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. A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thirty thousand (230,000) gallons per month. This facility includes the following:

(A) One (1) diesel storage tank, approved in 2013 for construction, identified as T1 or Diesel Storage Tank #1, with a nominal storage capacity of two thousand (2,000) gallons.

(B) One (1) diesel storage tank, approved in 2013 for construction, identified as T4 or Diesel Storage Tank #4, with a nominal storage capacity of five thousand (5,000) gallons.

(C) Two (2) diesel dispensing operations, approved in 2013 for construction, identified as T1 and T4.

(c) 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.

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

(d) Refractory storage not requiring air pollution control equipment.

(e) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.

(f) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

(g) Machining where an aqueous cutting coolant continuously floods the machining interface.

(h) Closed loop heating and cooling systems.

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

(j) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner or Operator, that is, an on-site sewage treatment facility.

(k) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.

(l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

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

(n) Heat exchanger cleaning and repair.

(o) Process vessel degassing and cleaning to prepare for internal repairs.

(p) Purging of gas lines and vessels that is related to 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.

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

(r) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(s) On-site fire training approved by the department.

(t) Purge double block and bleed valves.

(u) Filter or coalescer media changeout.

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

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

(x) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).

(y) Brazing equipment, cutting torches, soldering equipment, and welding equipment related to manufacturing activities not resulting in emissions of HAPs.

(z) One (1) electric Temper Mill, used to align steel fibers, with no emissions.

Existing Approvals

Since the issuance of the Part 70 Operating Permit T033-8068-00043 on October 4, 2006, the source has constructed or has been operating under the following additional approvals:

Permit Type	Permit Number	Issuance Date
Significant Source Modification	033-23028-00043	October 26, 2007
Significant Permit Modification	033-24411-00043	December 19, 2007
Significant Permit Modification	033-27843-00043	July 10, 2009
Significant Permit Modification	033-28134-00043	December 30, 2009
Significant Permit Modification	033-28510-00043	February 11, 2011
Minor Source Modification	033-30828-00043	September 13, 2011

Permit Type	Permit Number	Issuance Date
Minor Permit Modification	033-30847-00043	November 7, 2011
Minor Source Modification	033-32483-00043	February 4, 2013
Significant Permit Modification	033-32660-00043	April 24, 2013
Administrative Amendment	033-32147-00043	April 26, 2013
Significant Permit Modification	033-33268-00043	August 28, 2013

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.

Emission Calculations

See Appendix A of this document for emission calculations.

The Permittee has agreed that they are major for Part 70 Permits 326 IAC 2-7 and Prevention of Significant Deterioration (PSD) 326 IAC 2-2. Detailed calculations of unrestricted Potential to Emit have not been done for SO_2, CO, VOC, PM, PM_{10}, $PM_{2.5}$, NO_2, or GHGs.

County Attainment Status

The source is located in Dekalb County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (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. Dekalb 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) $PM_{2.5}$
Dekalb County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Dekalb 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 an iron and steel mill plant, 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.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	>100
PM_{10}	>100
$PM_{2.5}$	>100
SO_2	>100
VOC	>100
CO	>100
NO_x	>100
GHGs as CO_2e	>100,000
Single HAP	<10
Total HAP	<25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO_2, CO, VOC, PM_{10}, $PM_{2.5}$, and NOx 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 GHGs is equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) 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.

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.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Electric Arc Furnaces	155.05	447.63	>100	350.40	893.52	227.76	3,504	NA	0.56	-
Ladle Metallurgical Stations	24.05	24.05	245.28		43.80	14.37	175.2	NA	***	***
Combustion	4.66	18.63	19.30	1.47	363.89	13.49	205.96	295,981	0.21	-
Storage Silo 5c	0.45	0.45	45.05	-	-	-	-	-	0.01	-
Cold Mill Operations - Pickling Line	6.59	6.59	659.34	-	-	-	-	-	1.40	-
Reversing Mill	31.54	31.54	3,154	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	38.96	0.27	39,395	14.60	6.36 Glycol Ethers
Fuel Dispensing Activities	-	-	-	-	-	0.79	-	-	0.01	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	600	0.01	-
Steel Dynamics, Inc. - IDD	>100	>100	>100	>100	>100	>100	>100	>36,000	6.85	-
Total PTE of Entire Source	**>100**	**>100**	**>100**	**>100**	**>100**	**>100**	**>100**	**>100,00**	**23.66**	**6.36**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100		NA	NA

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

(b) The source-wide GHG emissions are equal to or greater than one hundred thousand (>100,000) tons of CO_2 equivalent (CO_2e) emissions per year. GHG emissions do not affect the source PSD status.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability

CAM:

(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:

CAM for PM/PM10							
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)**
D.1 - EAF #1, Contiuous Casters	Baghouse	Y	>100	<100	100	***	N
D.1 - EAF #2	Baghouse	Y	>100	<100	100	***	N
D.1 - EAF Dust Silo 5c	Bin Vent	Y	<100	<100	100	N	N
D.2 - 2 LMS	Baghouse	Y	>100	<100	100	Y	N
D.4 - Pickling Line	Mist Eliminator	Y	>100	<100	100	Y	N
D.5 - Scale Breaker	Baghouse	Y	>100	<100	100	Y	N
D.7 - Cold Reversing Mill	Mist Eliminator	Y	>100	<100	100	Y	N

*D.1 - EAF #1, D.1 - EAF #2 also emit metal HAPs (lead and mercury) as part of PM/PM10 and are controlled by the baghouses.

**Although D.1 - EAF #1 and D.1 - EAF #2 are subject to NSPS, 40 CFR 60, Subpart AAa - Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983, the NSPS was promulgated before November 15, 1990. Therefore, the units are not exempt from the requirements of CAM.

*** D.1 - EAF #1 and D.1 - EAF #2 are required to operate a continuous opacity monitoring system or a bag leak detection system under a part 70 permit condition, therefore, pursuant to 40 CFR 64.2(b)(vi), the requirements of CAM do not apply.

CAM for HCL							
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)**
D.4 - Pickling Line*	Scrubber / Mist Eliminator	Y	>10	<10	10	Y	N

CAM for CO							
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)**
D.10 - 2 Curing Ovens	Thermal Oxidizer	N	<100	<100	100	N	N

CAM for VOC							
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)**
D.10 - 2-Side, 2-Coat Coil Coating Line	Thermal Oxidizer	Y	>100	<100	100	Y	N
D.10 - 2 Curing Ovens	Thermal Oxidizer	Y	<100	<100	100	N	N

Notes: Only the units with control devices specific to that pollutant have been included in the CAM tables above. Units with low NOx burners were not included in the above tables because low NOx burners are not considered control devices under CAM. No other units have control devices. Therefore, no other units at the source are not subject to the requirements of CAM.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to D.1 - EAF Dust Silo 5c, D.2 - 2 LMS, D.4 - Pickling Line, D.5 - Scale Breaker, and D.7 Cold Reversing Mill for PM/PM10 upon issuance of this Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal. The Part 70 Compliance Monitoring Requirements shall satisfy the CAM requirements. See the Compliance Monitoring Section of this TSD for the detailed CAM requirements.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to D.4 - Pickling Line for PM/PM10 and HCL upon issuance of this Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal. The Part 70 Compliance Monitoring Requirements shall satisfy the CAM requirements. See the Compliance Monitoring Section of this TSD for the detailed CAM requirements.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to D.10 - 2-Side, 2-Coat Coil Coating Line for VOC upon issuance of this Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal. The Part 70 Compliance Monitoring Requirements shall satisfy the CAM requirements. See the Compliance Monitoring Section of this TSD for the detailed CAM requirements.

NESHAP:

(b) This source has taken the following limits to ensure the Permittee meets the definition of an area source under 40 CF R 63.2:

(1) Pursuant to CP 033-5625-00043, issued August 8, 1996, and to ensure the Permittee meets the definition of an area source under 40 CF R 63.2, the hydrochloric acid mist from the pickle line shall be controlled by a scrubber with mist eliminator. Emissions shall not exceed 0.32 pounds per hour. The scrubber and mist eliminator shall be operated at all times when the pickle line is in operation.

(2) The single HAP emissions from the coil coating line shall be limited to less than 10 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

(3) The combined HAP emissions from the coil coating line shall be limited to less than 14.6 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

(4) The thermal oxidizer for the coil coating line shall be in operation whenever the coating line is in operation.

Compliance with these limits, in conjunction with the limits contained in Steel Dynamics, Inc. - Iron Dynamics Divisions permit and the potential to emit from all other units, shall limit the source-wide PTE of a single HAP and a combination of HAPs less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders any applicable major source 40 CFR 63 requirements not applicable.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, Subpart CCC are still not included in the permit for the pickling line because the source has taken limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, Subpart MMMM, are not included in the permit because the source has taken limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions and because the source does not coat miscellaneous parts.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Coil, Subpart SSSS, are not included in the permit because the source has taken limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(f) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). The units subject to this rule include the following:

(1) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

Insignificant Activities:

(2) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.

(A) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw.

Non applicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart ZZZZ.

(1) 40 CFR 63.6585 (a), (c)
(2) 40 CFR 63.6590 (a)(1)(iii), (a)(2)(iii), (c)(1)
(3) 40 CFR 63.6595 (a)(1), (c)
(4) 40 CFR 63.6603 (a)
(5) 40 CFR 63.6604 (b)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625 (e)(3), (f), (h), (i)
(8) 40 CFR 63.6640 (a), (b), (e), (f)(1), (f)(2), f(4)
(9) 40 CFR 63.6645 (a)(5)
(10) 40 CFR 63.6650 (a), (h)
(11) 40 CFR 63.6655 (a), (d), (e)(2), (f)
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6675

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart ZZZZ.

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process, Subpart DDDDD, are not included in the permit because the source has taken limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, Subpart EEEEE, are not included in the permit because the source has taken limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(i) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking (40 CFR 63, Subpart YYYYY). The units subject to this rule include the following:

(1) Electric Arc Furnaces (EAF)
Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system (“fourth hole” duct), an overhead roof exhaust system consisting of canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate

emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

Non applicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart YYYYY.

(1) 40 CFR 63.10680(a), (b)(1), (c) and (d)
(2) 40 CFR 63.10681(a)
(3) 40 CFR 63.10685
(4) 40 CFR 63.10686(a), (b), (d)(1) – (d)(4), (d)(6)
(5) 40 CFR 63.10690
(6) 40 CFR 63.10692
(7) Table 1 to 40 CFR 63, Subpart YYYYY

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart YYYYY.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, Subpart BBBBBB, are not included in the permit because this source is not a bulk gasoline terminal, pipeline breakout station, pipeline pumping station, or bulk gasoline plant as defined in 40 CFR 63.11100.

(k) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (40 CFR 63, Subpart CCCCCC). The units subject to this rule include the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

Nonapplicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart CCCCCC:

(1) 40 CFR 63.11111 (a), (b), (e), (h), (i)
(2) 40 CFR 63.11112 (a), (d)
(3) 40 CFR 63.11113 (b)
(4) 40 CFR 63.11115
(5) 40 CFR 63.11116
(6) 40 CFR 63.11125 (d)
(7) 40 CFR 63.11130
(8) 40 CFR 63.11132
(9) Table 3

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart CCCCCC.

(l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (40 CFR 63, Subpart HHHHHH) are not included in the permit for the 2-side, 2-

coat coil coating line because the 2-side, 2-coat coil coating line uses flow coating which is not regulated under 40 CFR 63, Subpart HHHHHH.

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63, Subpart JJJJJJ) are not included in the permit for the natural gas-fired boilers because natural gas-fired boilers are not regulated under 40 CFR 63, Subpart JJJJJJ.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, Subpart XXXXXX are not included in the permit for the blasting, grinding, and polishing units because the source is not "primarily engaged" in one of the following source categories: Electrical and Electronic Equipment Finishing Operations; Fabricated Metal Products; Fabricated Plate Work (Boiler Shops); Fabricated Structural Metal Manufacturing; Heating Equipment, except Electric; Industrial Machinery and Equipment Finishing Operations; Iron and Steel Forging; Primary Metal Products Manufacturing; and Valves and Pipe Fittings. The EPA considers a source to be "primarily engaged" in one of these source categories if it is classified under one of the following SIC codes: 3621, 3699, 3499, 3443, 3441, 3433, 3531, 3533, 3561, 3462, 3399, or 3494. Steel Dynamics, Inc. - Flat Roll Division is classified under the SIC code 3312.

NSPS:

(o) This source is subject to the New Source Performance Standard for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 (40 CFR 60, Subpart AAa), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system (“fourth hole” duct), an overhead roof exhaust system consisting of a canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart AAa.

(1) 40 CFR 60.270a
(2) 40 CFR 60.271a
(3) 40 CFR 60.272a
(4) 40 CFR 60.273a
(5) 40 CFR 60.274a
(6) 40 CFR 60.275a
(7) 40 CFR 60.276a

(p) The pickle line boilers (No.1, 2 and 3) are subject to the New Source Performance Standards for Small industrial Boilers, Commercial-Institutional Steam Generating Boilers (40 CFR 60, Subpart Dc), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart Dc.

(1) 40 CFR 60.40c (a), (b)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c (a)(1 - 3), (g), (i), (j)

(q) The Paint Line (Coil Coating Line) is subject to the New Source Performance Standards for Metal Coil Surface Coating (40 CFR 60, Subpart TT), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

(2) Two (2) curing ovens, permitted in 2002 for construction, with a combined nominal heat input capacity of 16 MMBtu per hour using a 60 MMBtu per hour nominal heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart TT.

(1) 40 CFR 60.460
(2) 40 CFR 60.461
(3) 40 CFR 60.462 (a)(2), (a)(3)
(4) 40 CFR 60.463 (a), (b), (c)(2)
(5) 40 CFR 60.464 (a), (c)
(6) 40 CFR 60.465
(7) 40 CFR 60.466 (a - c)

(r) The slag handling operation is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) since the slag material being crushed is not a nonmetallic mineral pursuant to 40 CFR 60.671. Therefore, the requirements of the NSPS are not included in the permit.

(s) The slag handling operation is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.380 through 60.686, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) since the operations are not producing metallic mineral concentrates from ore. None of these slag handling operations are performed in a mine or pit. Therefore, the requirements of the NSPS are not included in the permit.

(t) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, are not included in the permit for the diesel, gasoline, and other volatile organic liquid storage vessels because no storage vessel has a capacity greater than or equal to 75 cubic meters.

(u) This source is subject to the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.

(A) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart IIII.

(1) 40 CFR 60.4200 (a)(2)(i), (a)(4)
(2) 40 CFR 60.4205 (b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207 (a), (b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209 (a)
(7) 40 CFR 60.4211 (a), (c), (f)
(8) 40 CFR 60.4218
(9) 40 CFR 60.4219
(10) Table 8

The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), are not included in the permit for the Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), because they were manufactured prior to 2007.

(v) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), are not included in the permit because there are no spark ignition engines at this source.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)
The source is subject to 326 IAC 1-5-2.

326 IAC 1-7 (Stack Height Provisions)
Pursuant to 326 IAC 1-7, the source shall comply with 326 IAC 1-7-3 for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of this source will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply. Please see 40 CFR 63 rule applicability for limits the Permittee has taken to ensure they meet the definition of an area source under 40 CFR 63.2.

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is greater than 250 tons per year, and the potential to emit of CO is greater than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by July 1, 2014, and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1).

326 IAC 6-4 Fugitive Dust Emissions
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), all sources of fugitive dust shall not allow the generation of particulate matter such that it escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is subject to the requirements of 326 IAC 6-5, because the potential fugitive particulate emissions from grain receiving are greater than 25 tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, which is included as Attachment A to the permit.

326 IAC 6.5 (PM Limitations Except Lake County)
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 10 (Nitrogen Oxide Rules)
This source is not subject to 326 IAC 10 because it is not located in Floyd County, it is not one of the specific source categories listed under 326 IAC 10-3-1, and it does not have any electricity generating units or large affected units (as defined under 326 IAC 10-4-2(27)).

State Rule Applicability – Individual Facilities

Melt Shop Operations

326 IAC 2-2 (Particulate Matter Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to PSD CP 033-8091-00043, issued June 25, 1997, PSD SSM 033-23028-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements):

(1) The PM/PM10 emissions from EAF #1 South shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture exhausted to EAF Baghouse 1 with a minimum 99.85 control efficiency for filterable PM/PM10, discharging through Stack 01. A negative pressure shall be maintained to draw particulate matter through the DSE duct. Baghouse 1 shall be operated at all times when the EAF #1 South is in operation.

(2) The PM/PM10 emissions from EAF #2 North shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture and shall exhaust to EAF Baghouse 2 with a minimum 99.85 control efficiency for filterable PM/PM10, which discharges through Stack 92. A negative pressure shall be maintained to draw particulate matter through the DSE duct. Baghouse 2 shall be operated at all times when the EAF #2 North is in operation.

(3) The PM/PM10 emissions from EAF #2 North and EAF #1 South shall not exceed the limits in the following table:

Unit (Control)	Filterable PM/PM10 Limits		Filterable and Condensable PM10 Limits	
	(gr/dscf)	(lb/hr)	(gr/dscf)	(lb/hr)
EAF #1 South (EAF Baghouse 1)	0.0018	20.1	0.0052	57.9
EAF #2 North (EAF Baghouse 2)	0.0018	15.3	0.0052	44.3

(b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), PM/PM10 emissions from the continuous casters shall be captured by canopy hoods and exhausted to EAF baghouse 1 and then to Stack 01. Baghouse 1 shall be operated at all times when the continuous casters are in operation.

(c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the Permittee shall do the following as needed:

(1) Mechanically reduce skulls, coils and steel scrap in size.

(2) Oxygen lancing/cutting of any skulls, coils and steel scrap not mechanically reduced in size shall be conducted inside a building with adequate capture of emissions by a control system and a baghouse to control emissions.

(d) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), the filterable PM/PM10 emissions from EAF dust silo 5c shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf).

326 IAC 2-2 (Nitrogen Oxide Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the total NO_x emissions from the EAF#1 South (Stack 01) and EAF#2 North (Stack 92) using low-NOx natural gas fired burners shall not exceed 0.51 pounds per ton of steel produced and 204.0 pounds per hour.

(b) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the Ladle Dryout Station (LDS) shall be limited to the use of natural gas, shall not exceed 10 MMBtu per hour heat input and NOx emissions shall not exceed 0.10 lbs/MMBtu.

(c) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the four (4) Ladle Preheat Stations (LPS) shall be limited solely to the use of low-NOx natural gas-fired burners. The four (4) horizontal preheater stations combined shall not exceed 40 MMBtu per hour heat input and the NOx emissions shall not exceed 0.14 lbs/MMBtu.

(d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD -Control Technology Review; Requirements), the three (3) Tundish dryers shall use low-NOx burners. Each burner shall be limited to 1.5 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.

(e) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the two (2) Tundish Preheaters shall use

low-NOx burners. Each burner shall not exceed 9.4 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.

326 IAC 2-2 (Sulfur Dioxide Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the combined SO2 emissions from the LMF (Stack 61), EAF #1 South (Stack 01) and EAF #2 North (Stack 92) shall not exceed 0.2 pounds per ton of steel produced and 80 pounds of SO2 per hour.

(b) Pursuant to CP 033-8091-00043, issued June 24, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the SO2 emissions from the EAFs shall be controlled by the use of high quality scrap and monitoring the sulfur content of the coke.

326 IAC 2-2 (Carbon Monoxide Limitations Prevention of Significant Deterioration (PSD) (BACT))

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD – Control Technology Review; Requirements), the CO emissions from EAFs shall be controlled by an adjustment gap between the EAF direct shell evacuation system (DSE) and the remaining water cooled duct to common baghouse. The CO emissions from each EAF shall not exceed 2.0 pounds per ton of hot steel produced. The total emissions from EAF #1 South (Stack 1) and EAF #2 North (Stack 92) shall not exceed 800 pounds per hour. A negative pressure shall be maintained at the gap. The direct shell evacuation system, Baghouse 1, and Baghouse 2 shall be operated at all times when the EAF exhausting to it is in operation.

326 IAC 2-2 (VOC Limitations Prevention of Significant Deterioration (PSD) (BACT))

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements):

(a) VOC emissions from EAFs shall be controlled through a scrap management program. The Permittee shall implement the SMP, which shall be in writing and available for inspection. The SMP shall provide at a minimum:

(1) All grades of scrap charged to the furnaces shall not contain excessive non-metallics.

(2) All grades of scrap shall not contain excessive oil and grease.

(3) Heavily oiled scrap shall not be used.

(b) Total VOC emissions from the EAF EAF#1 South (Stack 01) and EAF#2 North (Stack 92) shall be limited to 0.13 pounds of VOC emissions per ton of steel produced and shall not exceed 52.0 pounds per hour.

326 IAC 2-2 (PSD)

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the total lead emissions from EAF Baghouse 1 (Stack 1) and EAF Baghouse 2 (Stack 92) shall not exceed 0.19 pounds per hour.

(b) The total mercury emissions from EAF Baghouse 1 and EAF Baghouse 2 shall not exceed 0.022 pounds per hour. Compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to CP 033-8091-00043.

326 IAC 2-2 (Visible Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), visible emissions from the EAF Baghouse 1 and EAF Baghouse 2 stack exhausts (Stack 1 and Stack 92, respectively) shall not exceed three

percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the fugitive emissions generated by the EAFs shall not exceed three percent (3%) opacity from any building opening as determined by a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9). Three percent (3%) opacity is reflective of 100 percent capture.

(c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the EAF slag pit dig out operation located beneath each furnace shall not exceed five (5%) percent opacity. Each EAF slag pit dig out operation shall be controlled with the use of its associated EAF's baghouse.

(d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD -Control Technology Review Requirements), visible emissions from the building opening and EAF dust handling system shall not exceed three percent (3%) opacity based on a six-minute average(24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

(e) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the carbon and flux additive system conveyors and transfer points shall be enclosed and vented indoors.

(f) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), visible emissions of the exhaust from EAF dust silo 5c shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)

(a) The EAFs are not subject to 326 IAC 6-3, because they have applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

(b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) EAF dust silos (bin vent 5a and bin vent 5b), six (6) Lime/carbon silos (associated with Bin Vents 22 - 27), two (2) alloy silos and the carbon silo shall be calculated with the following equation:

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

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

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

326 IAC 7-1.1 (Sulfur Dioxide Limitations)

This source is subject to 326 IAC 7-1.1 and the BACT sulfur dioxide limits satisfy the required emissions limitations in 326 IAC 2-2 (Prevent Significant Deterioration) and 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations).

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
Pursuant to 326 IAC 8-1-6, the EAFs (#1 and #2) have potential VOC emissions greater than 25 tons per year and were constructed after January 1, 1980. Therefore, the EAFs are subject to Best Available Control Technology (BACT) for VOC emissions. The BACT requirements for 326 IAC 2-2 for VOC emissions are considered equivalent to the BACT requirements under 326 IAC 8-1-6.

326 IAC 9-1 (Carbon Monoxide Limitations)
The EAFs are not subject to 326 IAC 9-1, because they do not produce steel from ore. Therefore, 326 IAC 9-1 does not apply.

Ladle Metallurgical Stations

326 IAC 2-2 (Particulate Matter Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM/PM-10 emissions from the ladle metallurgical stations (LMS) and stir stations shall be captured by a side draft hood and exhausted to the LMF baghouse to Stack 61.

(b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM/PM-10 filterable emissions from the LMF Stack 61 shall not exceed 0.0032 grains per dry standard cubic foot and 5.49 pounds per hour.

326 IAC 2-2 (Nitrogen Oxide Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-9187-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the NOx emissions from the LMF Stack 61 shall not exceed 0.025 pounds per ton of steel produced and 10 pounds of NOx emissions per hour.

326 IAC 2-2 (Sulfur Dioxide (SO2) Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the combined SO2 emissions from the LMF (Stack 61), EAF #1 South (Stack 01) and EAF #2 North (Stack 92) shall not exceed 0.2 pounds per ton of steel produced and 80 pounds of SO2 per hour.

326 IAC 2-2 (Carbon Monoxide (CO) Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), CO emissions from LMF Stack 61 shall not exceed 0.1 pounds per ton of steel produced and 40 pounds of CO per hour.

326 IAC 2-2 (VOC Emission Limitations (PSD))
Pursuant to CP 033-9187-00043, issued March 24, 1998, and Significant Permit Modification No. 033-28134-00043, VOC emissions from the LMF Stack 61 shall not exceed 0.0082 pounds per ton of steel produced and 3.28 pounds of VOC per hour.

Compliance with these emission limits will ensure that the VOC emissions from CP 033-9187-00043 are less than forty (40) tons per year and therefore will render the requirements of 326 IAC 2-2 not applicable to CP 033-9187-00043 for VOC.

326 IAC 2-2 (Visible Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), visible emissions from the LMF baghouse Stack 61 shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The ladle metallurgical stations (LMS) are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
The LMSs are not subject to 326 IAC 6-3, because it has applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

326 IAC 7-1.1 (Sulfur Dioxide Limitations)
This source is subject to 326 IAC 7-1.1 and the BACT sulfur dioxide limits satisfy the required emissions limitations in 326 IAC 2-2 (Prevent Significant Deterioration) and 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations).

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
Pursuant to 326 IAC 8-1-6, the LMF Stack 61 has potential VOC emissions greater than 25 tons per year and was constructed after January 1, 1980. However, the source took limits so that emissions from the LMF Stack 61 shall be less than 25 tons per year as part of the VOC PSD minor limit established in CP 033-9187-00043. Therefore, compliance with the VOC PSD minor limit for 326 IAC 2-2 renders the requirements of 326 IAC 8-1-6 not applicable.

Hot Mill Operations – Tunnel Furnaces

326 IAC 2-2 (Nitrogen Oxides (NOx) Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 1 shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.17 pounds per MMBtu and 20.0 pounds per hour through Stack 2.

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 2 heating zone shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.10 pounds per MMBtu and 9.2 pounds per hour through Stack 42.

326 IAC 2-2 (Visible Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel furnace No. 1 (Stack 2), shall not exceed five percent (5%). The opacity shall be determined by 40 CFR 60, Appendix A, Method 9.

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel Furnace No. 2 (Stack 42), shall not exceed three percent (3%) opacity based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The tunnel furnaces are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The tunnel furnaces are exempt from the requirements of 326 IAC 6-3, because, it is not a manufacturing process as defined in 326 IAC 6-3-1.5(2).

326 IAC 7-1.1 (Sulfur Dioxide Limitations)
The potential SO2 emissions from the tunnel furnaces are less than 25 tons per year and 10 pounds per hour. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
The potential VOC emissions from the tunnel furnaces are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Cold Mill Operations - Pickling Line

326 IAC 2-2 (Particulate Matter Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the pickle line particulate matter emissions shall be controlled by a scrubber with mist eliminator and the filterable particulate matter emissions from Stack 17 shall not exceed 1.23 pounds per hour. The scrubber with mist eliminator shall be operated at all times when the pickle line is in operation.

326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes (HCl Pickling))
The pickle line is not subject to 326 IAC 6-3, because it has applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

Pickle Line Scale Breaker

326 IAC 2-2 (Particulate Matter Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to 326 IAC 2-2 BACT, the pickle line scale breaker particulate matter PM/PM10 emissions shall be controlled by a baghouse with an outlet grain loading of 0.003 gr/dscf and PM/PM10 emissions shall not exceed 1.19 lb/hr.

326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes)
The pickle line scale breaker is not subject to 326 IAC 6-3, because it has applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

Pickle Line Boilers

326 IAC 2-2 (Nitrogen Oxide Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to 326 IAC 2-2 (BACT), only two of the three boilers Nos. 1, 2 and 3, shall be utilized at any time.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the pickle line boilers shall not exceed 81 pounds per million cubic feet (MMCF) of gas burned.

326 IAC 6-2-4 (Particulate Emission Limitations)
Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Pickle Line Boiler No. 1	1996	20.4	45.3	0.40	0.40	0.002
Pickle Line Boiler No. 2	1996	20.4	45.3	0.40	0.40	0.002
Pickle Line Boiler No. 3	2006	20.4	45.3	0.40	0.40	0.002
Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.						

326 IAC 7-1.1 (Sulfur Dioxide Limitations)
The potential SO2 emissions from the pickle line boilers are less than 25 tons per year and 10 pounds per hour, each. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
The potential VOC emissions from the pickle line boilers are less than 25 tons per year, each. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Reversing Mill

326 IAC 2-2 (Particulate Matter Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the filterable particulate matter emissions from the cold reversing mill shall be controlled by a mist eliminator. Particulate matter emissions from Stack 18 shall not exceed 7.2 pounds per hour.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
The reversing mill is not subject to 326 IAC 6-3, because it has applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

Galvanizing Lines

326 IAC 2-2 (Particulate Matter Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band and cold roll galvanizing lines heaters shall burn natural gas only.

326 IAC 2-2 (Nitrogen Oxide Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the hot band galvanizing line heater shall not exceed 200 pounds per MMCF of natural gas burned.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band galvanizing line heater shall use low-NOx burners.

(c) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the cold roll galvanizing line heater shall not exceed 200 pounds per MMCF of natural gas burned.

(d) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the cold roll galvanizing line heater shall use low-NOx burners.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The Galvanizing Line 1 and Galvanizing Line 2 are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
The Galvanizing Line 1 and Galvanizing Line 2 are not subject to 326 IAC 6-3, because they have applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

326 IAC 7-1.1 (Sulfur Dioxide Limitations)
The potential SO2 emissions from the Galvanizing Line 1 and Galvanizing Line 2 are less than 25 tons per year and 10 pounds per hour, each. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
The potential VOC emissions from the Galvanizing Line 1 and Galvanizing Line 2 are less than 25 tons per year, each. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Annealing Furnaces

326 IAC 2-2 (Particulate Matter Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))
Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall burn natural gas only.

326 IAC 2-2 (Nitrogen Oxide Emissions Limitations Prevention of Significant Deterioration (PSD) (BACT))

(a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the annealing furnaces shall not exceed 200 pounds per MMCF of natural gas burned.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall be equipped with low-NOx burners.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The annealing furnaces are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
The annealing furnaces are not subject to 326 IAC 6-3, because they have applicable particulate matter emissions limitations in previous permits issued pursuant to PSD BACT (326 IAC 2-2-3) that are more stringent than the limitations established in 326 IAC 6-3-2.

326 IAC 7-1.1 (Sulfur Dioxide Limitations)
The potential SO2 emissions from the annealing furnaces are less than 25 tons per year and 10 pounds per hour, each. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)
The potential VOC emissions from the annealing furnaces are less than 25 tons per year, each. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Paint Line (Coil Coating Line)

326 IAC 2-2 (Volatile Organic Compounds (VOC))

(a) For the 2-side, 2-coat, coil-coating line the input of VOC shall be limited to less than 3894 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.

(b) The combined heat input rate for the two curing ovens shall not exceed 140,160 million Btu per twelve (12) consecutive month period and for the thermal oxidizer shall not exceed 525,600 million Btu per twelve (12) consecutive month period.

(c) The thermal oxidizer controlling the 2-side, 2-coat, coil-coating line shall be in operation and achieve 99% overall VOC control at all times the 2-side, 2-coat, coil-coating line is in operation.

(d) Compliance with items (a), (b), and (c) combined, limits the VOC emissions from the 2-side, 2-coat coil coating line modification to less than forty (40) tons per 12 consecutive months period, with the compliance status demonstrated at the end of each month and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD)) not applicable to this modification.

326 IAC 8-2-4 (Volatile Organic Compounds (VOC))

(a) Pursuant to SSM 033-15836-00043, issued December 21, 2002 and 326 IAC 8-2-4 (Coil Coating Operations), the volatile organic compound (VOC) discharge to the atmosphere shall be limited to 2.6 pounds VOC per gallon of coating less water delivered to the coating applicator from prime and topcoat or single coat operations.

(b) Pursuant to 326 IAC 8-1-2 (b), the coil coating line VOC emissions shall be limited to no greater than the equivalent emissions, 4.02 pounds of VOC per gallon of coating solids, allowed in (a).

The equivalency emissions are determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating.

D = Density of VOC in coating in pounds per gallon of VOC.
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine compliance of the coil coating operation using the compliance methods in 326 IAC 8-1-2 (a).

(c) Pursuant to 326 IAC 8-1-2(c) the overall control efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency of 46.04% calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
O = Equivalent overall efficiency of the capture system and control device as a percentage.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
The 2-side, 2-coat, coil-coating line is a flow coat operation. Surface coating using flow coating is specifically exempt under 326 IAC 6-3-1(b)(7) (Particulate Emissions Limitations from Manufacturing Processes). Therefore, the requirements of 326 IAC 6-3 are not applicable.

Slag Handling Operations

326 IAC 2-2 (Fugitive Dust Limitations (BACT))
(a) Pursuant to CP 033-3692-00043 issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from slag processing by at least 95 percent based on a filterable PM10 emission basis.

(b) Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from storage piles by eighty (80) percent.

Fugitive Dust Sources

326 IAC 2-2 (Fugitive Dust Limitations (BACT)) and 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from the paved roads, parking lots, unpaved roads, and traveled open areas by eighty (80%) percent.

Specifically Regulated Insignificant Activities

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu.

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
18 heating units	After September 21, 1983	0.25 (each)	4.50	0.74	0.6	0.002

* All of the sources of indirect heating began operation after September 21, 1983. For this worst-case analysis, it is assumed that all sources of indirect heating have the same construction date as the first construction permit for this source and *all* space heaters are considered sources of indirect heating.

Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission pound per hour limitation from insignificant activities shall be calculated using the following equation:

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

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

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

326 IAC 8-3 (Organic Solvent Degreasing Operations)
The degreasing operations at this source do not use any solvents containing VOCs. Therefore, the requirements of 326 IAC 8-3 are not applicable.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
The gasoline storage tank and diesel storage tanks each have a storage capacity less than 39,000 gallons. Therefore, the requirements of 326 IAC 8-4-3 do not apply.

326 IAC 8-4-6 (Gasoline Dispensing Facilites)
In order to render the requirements of 326 IAC 8-4-6 not applicable for the Gasoline Storage Tanks #2 and #3 (or T2 and T3), the Permittee shall comply with the following:

(a) The monthly gasoline throughput from the Gasoline Storage Tank #2 (or T2) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

(b) The monthly gasoline throughput from the Gasoline Storage Tank #3 (or T3) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities) not applicable.

Compliance Determination and Monitoring Requirements

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

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

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

(a) The melt shop operations have applicable compliance determination conditions as specified below:

Particulate Control
(1) Bin vent filter 5c shall control emissions from EAF dust silo 5c at all times necessary to meet the requirements of Condition D.1.2(d) – Particulate (PM/PM-10) Limitations – Best Available Control Technology.

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
EAF #1 South & EAF #2 North	Baghouse	Within 2.5 years of the latest valid compliance demonstration	PM, PM10, NOx, SO2, CO, VOC	Once every 2.5 years

The compliance monitoring requirements applicable to the melt shop are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
EAF Baghouse #1 South	BLDS	Continuous	Predetermined increases in PM loading sets off an alarm, which the operator will respond to.	Response Steps
EAF Baghouse #2 North	BLDS	Continuous	Predetermined increases in PM loading sets off an alarm, which the operator will respond to.	Response Steps
melt shop building openings	Visible Emissions	Daily	Normal-Abnormal	Response Steps
dust handling system	Visible Emissions	Daily	Normal-Abnormal	Response Steps
melt shop roof monitors	Visible Emissions	Daily	Normal-Abnormal	Response Steps
bin vent filter 5c	Visible Emissions	Daily	Normal-Abnormal	Response Steps

These monitoring conditions are necessary because the melt shop building openings, dust handling system, melt shop roof monitors, bin vent filter 5c, EAF baghouse # 1 South, and EAF baghouse #2 North for the melt shop operations must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), and 326 IAC 2-2 (PSD).

(b) The ladle metallurgical stations have applicable compliance determination conditions as specified below:

Particulate Control

(1) The LMF baghouse shall be operated at all times when the LMSs and stir stations are in operation.

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
ladle metallurgical stations	baghouse	Within 2.5 years of the latest valid compliance demonstration	PM, PM10, NOx, SO2, CO, VOC	Once every 2.5 years

The compliance monitoring requirements applicable to the ladle metallurgical stations are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
LMF baghouse (40 CFR 64, CAM)	Water Pressure Drop	Daily	2.0 to 10.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

These monitoring conditions are necessary because the LMF baghouse for the ladle metallurgical stations must operate properly to ensure compliance with 326 IAC 2-2 (PSD) and 40 CFR 64 (CAM).

(c) The pickling line have applicable compliance determination conditions as specified below:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
pickling line	scrubber with mist eliminator	Within 5 years of the latest valid compliance demonstration	HCL	Once every 5 years

The compliance monitoring requirements applicable to the pickling line is as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
scrubber with mist eliminator (40 CFR 64, CAM)	Flow Rate	Daily	at or above the minimum rate as observed during the latest compliant stack test	Response Steps

These monitoring conditions are necessary because the scrubber for the pickling line must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 40 CFR 63, Subpart CCC (minor limit), and 40 CFR 64 (CAM).

(d) The pickle line scale breaker have applicable compliance determination conditions as specified below:

(1) The scale breaker baghouse shall be in operation at all times the scale breaker is in operation.

The compliance monitoring requirements applicable to the pickle line scale breaker are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
scale breaker baghouse (40 CFR 64, CAM)	Visible Emissions	Daily	Normal-Abnormal	Response Steps

These monitoring conditions are necessary because the scale breaker baghouse for the scale breaker must operate properly to ensure compliance with 326 IAC 2-2 (PSD) and 40 CFR 64 (CAM).

(e) The reversing mill has applicable compliance determination conditions as specified below:

(1) The reversing mill mist eliminator shall be in operation at all times the reversing mill is in operation.

This determination condition is necessary because the reversing mill mist eliminator for the reversing mill must operate properly to ensure compliance with 326 IAC 2-2 (PSD).

(f) The paint line has applicable compliance determination conditions as specified below:

Permanent Total Enclosure
In order to maintain the minor status for the 2-side, 2-coat, coil coating line, the Permittee shall use a permanent total enclosure:

(1) The capture system for the 2-side, 2-coat, coil coating line shall meet the criteria for a Permanent Total Enclosure as described in 40 CFR 51, Method 204.

-or-

(2) Verify 100% capture through other methods as approved by the Commissioner.

Thermal Oxidizer
(1) The thermal oxidizer shall operate with a control efficiency of not less than 99% at all times that the 2-side, 2-coat, coil coating line is in operation. This efficiency is necessary to ensure compliance with conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, D.10.2 - Volatile Organic Compounds (VOC), and D.10.4 - Metal Coil Surface Coating NSPS.

(2) The thermal oxidizer shall be in operation and control emissions from the 2-side, 2-coat, coil coating line at all times that the 2-side, 2-coat, coil coating line is in operation.

VOC and HAP(s)
(1) Compliance with shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

VOC emitted = [(VOC input) x (100 – Overall control efficiency of thermal oxidizer)]

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(2) If VOC emissions from the 2-side, 2-coat coil line exceed nine (9) tons for any twelve consecutive month period, or the Permittee chooses to demonstrate compliance using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

HAP emitted = [(HAP input) x (100 - Overall control efficiency of thermal oxidizer)]

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
paint line	thermal oxidizer	Within 5 years of the latest valid compliance demonstration	VOC, HAP	Once every 5 years

The compliance monitoring requirements applicable to the paint line are as follows:

Control	Parameter	Frequency	Range
thermal oxidizer (40 CFR 64, CAM)	temperature	continuous	at or above the 3-hour average temperature as observed during the compliant stack test
	duct pressure or fan amperage	daily	normal range as established in the most recent compliant stack test

These monitoring conditions are necessary because the thermal oxidizer for the paint line must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 40 CFR 63.1 (area source limit), 326 IAC 8-2-4 (Coil Coating Operations), and 40 CFR 64 (CAM).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T033-8068-00043. These corrections, changes, and removals may include Title I changes (ex changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**.

Summary of Model Updates

(a) *On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules in Section A - General Information, Section A - Emission Units and Pollution Control Equipment Summary, Section A - Insignificant Activities, Section B - Preventive Maintenance Plan, Section B - Emergency Provisions, Section B - Operational Flexibility, Section C - Risk Management Plan, and Section D - Preventive Maintenance Plan.*

(b) *On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule cite of the "responsible official" definition. The rule citation has been changed throughout the permit as follows:*

326 IAC 2-7-1~~(34)~~**(35)**

(c) On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions included the incorporation of the U.S. EPA's definition of reasonable possibility. The permit previously sited to the EPA definition. Also, the revisions resulted in changes to other rule sites listed in the permit. Neither of these changes are changes to the underlining provisions. The change is only to site of these rules in Section C - General Reporting and Section C - General Recordkeeping.

(d) Multiple conditions were modified to remove the time period for the initial certification or report since that time has passed.

(e) IDEM, OAQ has decided to clarify Section B.10 - Preventive Maintenance Plan.

(f) IDEM Northern Regional Office information has been added to Condition B.11 - Emergency Provisions.

(g) IDEM, OAQ has revised the language in Condition C.23 - Annual Fee Payment to more closely match the underlying rule.

(h) IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping.

(i) IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM. IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.

(j) IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

(k) IDEM is changing the Section C.10 - Compliance Monitoring Condition to clearly describe when new monitoring for new and existing units must begin.

(l) IDEM has clarified Section C.11 - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

(m) IDEM, OAQ has revised the language in the parametric monitoring conditions to clarify when a range should be modified due to test results.

(n) IDEM, OAQ has decided to clarify the language in D Conditions - Visible Emission Notations and Parametric Monitoring such that it is clear that a Permittee may take one or more reasonable responses when abnormal emissions are present.

(o) IDEM, OAQ has decided to revise monitoring requirements associated with scrubber flow rate.

(p) The word "status" has been added to the Record Keeping Requirements and Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.

(q) IDEM, OAQ has decided to revise the Facility Description Box in each D Section as follows:

~~Facility Description [326 IAC 2-7-5(15)]:~~ **Emission Unit Description:** ***

(r) Typographical errors have been corrected throughout the permit.

(s) Per the Permittee's request Condition C.15 - Response to Excursions or Exceedances has been formatted differently than IDEM, OAQ usually formats the Condition.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5**(14)** ~~(15)~~][326 IAC 2-7-1(22)]

***

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5**(14)** ~~(15)~~]

***

A.4**5** Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] 326 IAC 2-7-5(**14)** ~~(15)~~]

***

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, ~~and~~ the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

***

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

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

***

(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 meet**s** the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5~~(1),(3) and (13)~~ **(12)**][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan ~~(PMP)~~ 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~~**35**).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMP**s** 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~~**35**).

(d) ***

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

(a) ***

(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:

***

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance ~~Section~~**and Enforcement Branch**), or
Telephone Number: 317-233-0178 (ask for **Office of Air Quality,** Compliance ~~Section~~**and Enforcement Branch**)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(~~34~~**35**).

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

***

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)~~(9)~~ **(8)** be revised in response to an emergency.

(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.

***

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~~**35**).

***

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~~**35**).

***

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

(a) **

(b) 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~~**35**).

(c) ***

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

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

***

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)**(1)**~~,~~ **or** (c)**(1)**~~, or (e)~~. The Permittee shall make such records available, upon reasonable request, for public review.

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

(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:

***

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~~**35**).

***

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**,** ~~and the~~ U.S. EPA, or an authorized representative to perform the following:

***

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 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~~**35**).

***

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. ~~In the event that the source is a sub-contractor and is combined with a larger Part 70 source, the larger Part 70 source may pay the Permittees' annual fees as part of the larger source billing and subject to the fee cap of the larger source. If, however, the larger Part 70 does not pay its annual Part permit fee, IDEM, OAQ will assess a separate fee in accordance with 326 IAC 2-7-19(c) to be paid by the Permittee.~~ 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.

***

C.1 Particulate ~~Matter~~ 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 ~~manufacturing~~ 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 ~~except as provided in~~ 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

***

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-~~52~~**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~~**35**).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, no**t** 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 no**t** later than five (5) days prior to the end of the initial forty-five (45) day period.

***

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

(a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

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~~**35**).

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

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

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

(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.

***

C.14 Response to Excursions or Exceedances **[40 CFR 64][326 IAC 3-8]** [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation ~~of~~**, not subject to CAM, in** this permit:

***

(b) CAM Response to excursions or exceedances.

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

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

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

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

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

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

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

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

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

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

(i) CAM recordkeeping requirements.

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

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

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

***

The response action documents submitted pursuant to this condition 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~~**35**).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-~~6~~**19**]~~[326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2]~~

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

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit ~~no later than~~ **by** July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

***

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~~**35**).

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring

sample, measurement, report, or application. **Support information includes the following, where applicable:**

(1) All calibration and maintenance records.

(2) All original strip chart recordings for continuous monitoring instrumentation.

(3) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

(1) The date, place, as defined in this permit, and time of sampling or measurements.

(2) The dates analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

***

(c) If there is a reasonable possibility (as defined in ~~40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)~~ **326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)**) that a "project" (as defined in 326 IAC 2-2-1(~~qq~~ **oo**) and/or 326 IAC 2-3-1(~~ll~~ **jj**)) at an existing emissions unit, other than projects at a ~~Clean Unit~~ **source with a Plantwide Applicability Limitation (PAL)**, which is not part of a "major modification" (as defined in 326 IAC 2-2-1(~~ee~~ **dd**) and/or 326 IAC 2-3-1(~~z~~ **y**)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(~~rr~~ **pp**) and/or 326 IAC 2-3-1(~~mm~~ **kk**)), the Permittee shall comply with following:

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

***

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

***

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

***

(d) If there is a reasonable possibility (as defined in ~~40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)~~ **326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)**) that a "project" (as defined in 326 IAC 2-2-1(~~qq~~ **oo**) and/or 326 IAC 2-3-1(~~ll~~ **jj**)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(~~ee~~ **dd**) and/or 326 IAC 2-3-1(~~z~~ **y**)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(~~rr~~ **pp**) and/or 326 IAC 2-3-1(~~mm~~ **kk**)), the Permittee shall comply with following:

***

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

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B.11 –Emergency Provisions satisfies the reporting requirements of this paragraph**. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

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

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C.15 - Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

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

***

(d) ~~The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, 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**.18** - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (~~qq~~ **oo**) and/or 326 IAC 2-3-1 (~~ll~~ **jj**)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to:***

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C**.18** - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (~~xx~~ **ww**) and/or 326 IAC 2-3-1 (~~qq~~ **pp**), for that regulated NSR pollutant, and

***

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

***

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

***

D.1.~~13~~**10** Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.1.~~16~~**13** Visible Emission Notations

***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. ~~An abnormal reading is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.~~ Condition C.~~14~~**15**- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.2.9 Visible Emission Notations **[40 CFR 64]**

***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Condition C.~~14~~**15**- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

D.2.10 Parametric Monitoring **[40 CFR 64]**

The Permittee shall record the pressure drop across the baghouse used in conjunction with the LMF at least once per day when the LMF is in operation. When for any one reading, the 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 **a** reasonable response ~~steps~~. **The normal range for this unit is a pressure drop between 2.0 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** Condition C.~~14~~**15** - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Condition C.11 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

***

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.4.5 Parametric Monitoring **[40 CFR 64]**

(a) The Permittee shall record the flow rate of the packed scrubber used in conjunction with the Pickling Line, at least once per day when the Pickling Line is in operation. ~~When for any one reading, the flow rate of the scrubber is below a minimum of six (6) gallons per minute (gpm) or a minimum flow rate established during the latest Stack test, the Permittee shall take reasonable response steps.~~

(b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Condition D.4.2 - Hydrochloric Acid (HCL) Pickling HAP Minor Emission Limitation.

(c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest compliant stack test.

(d) When for any one reading, the flow rate falls below the above mentioned minimum, the Permittee shall take a reasonable response. Condition C.~~14~~**15** - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable steps required by this condition. ~~A flow rate that is below the above mentioned minimum 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 flow rate shall comply with Condition C.11 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.~~

D.4.7 Record Keeping Requirements

(a) To document **the** compliance **status** with Condition D.4.5 **-** Parametric Monitoring, the Permittee shall maintain records of the once per day pickle line scrubber flow rate ~~during normal~~ **when the pickle line is in** operation. The Permittee shall include in its daily record when a flow rate reading is not taken and the reason for the lack of a flow rate reading (e.g. the process did not operate that day).

***

D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.5.4 Visible Emission Notations **[40 CFR 64]**

***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Condition C.~~14~~**15** - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

D.5.5 Record Keeping Requirements

(a) To document **the** compliance **status** with Condition D.5.4 **-** Visible Emission Notations, the Permittee shall maintain records of the once per day visible emission notations. 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).

***

D.6.~~5~~**4** Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.6.~~6~~**5** Record Keeping Requirements

(a) To document **the** compliance **status** with Condition D.6.4 **-** Particulate (PM/PM-10) and Sulfur Dioxide (SO_2) Limitations (NSPS), the Permittee shall maintain records of the natural gas usage for the boilers.

(b) To document **the** compliance **status** with Condition D.6.2 - Nitrogen Oxide (NOx) Limitations - Best Available Control Technology, the Permittee shall maintain records of when Boiler No. 3 is used as a backup for Boiler No. 1 or Boiler No. 2.

***

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.10.~~5~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

***

D.10.~~14~~**10** Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.10.1- Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Condition C.18 - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(~~34~~**35**).

***

D.11.2 Record Keeping Requirements

(a) To document **the** compliance **status** with Condition D.11.1 **-** Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures applied to the slag handling and storage piles, as specified in the Fugitive Dust Control Plan.

***

D.12.2 Record Keeping Requirements

(a) To document **the** compliance **status** with Condition D.12.1 - Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures (dust suppressants, water sprays and vacuum/sweeping of paved areas) used as specified in the Fugitive Dust Control Plan.

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch
~~100 N. Senate Avenue~~
~~Indianapolis, IN 46204-2251~~
~~Phone: 317-233-0178~~
~~Fax: 317-233-6865~~

~~PART 70 OPERATING PERMIT~~
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-~~8068~~**30061**-00043

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting**. 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".

Revisions Specific to This Permittee

(a) *The specific permit numbers from the original Part 70 Operating Permits have been removed from condition A.2 - Part 70 source Determination since Part 70 Operating Permit Renewals are being issued.*

(b) *Condition A.3 - Emission Units and Pollution Control Equipment Summary and the Facility Description Box for Section D.1 have been modified to show there are 2 ladle dryout stations instead of 1 and 5 ladle preheat stations instead of 4. The additional ladle dryout station and ladle preheat station were previously identified as Insignificant Activities - natural gas-fired combustion sources with heat input equal to or less than 10 MMBtu/hr. These units are now going to be dedicated to the ladle operations so the Permittee has requested the unit descriptions be updated.*

(c) *Condition A.3 - Emission Units and Pollution Control Equipment Summary and the Facility Description Box for Section D.11 have been modified to include the correct lengths of conveyors. A change in conveyor length does not impact potential to emit. This is only a descriptive change.*

(d) *Condition A.5 (previously A.4) - Insignificant Activities has been modified to remove the specifically regulated insignificant activities which have been placed in the new Condition A.4 - Specifically Regulated Insignificant Activities. The Facility Description Box for Section D.13 has been updated accordingly.*

(e) *Condition B.13 - Prior Permits Superseded was updated to match current model language instead of language approved in SPM No. 033-28510-00043.*

(f) *Per the Permittee's request, the requirements of 326 IAC 6-5 have been removed from specific D Conditions and instead are under a new C Condition.*

(g) *Per the Permittee's request Condition C.21 - Alternative Operating Scenario has been removed. The Permittee no longer has the infrastructure necessary to burn propane as an alternative fuel.*

(h) *Sections D.1, D.6 and D.10 was revised to incorporate the requirements of 40 CFR 60, Subpart AAa, Subpart Dc, and Subpart TT by reference instead of interpreting the requirements into several conditions. New compliance determination and monitoring conditions were added to replace the 40 CFR 60, Subpart AAa requirements that are now incorporated by reference.*

(i) *Condition D.1.2 - Particulate (PM/PM-10) Limitations - Best Available Control Technology has been revised to match the language from CP 033-9187-00043.*

(j) *IDEM, OAQ has decided to simplify multiple PSD BACT limits by combining sentences.*

(k) The rule cites for Condition D.1.4 - Sulfur Dioxide (SO_2) Limitations - Best Available Control Technology has been updated to include the cite for 326 IAC 7-1.1 since this condition also satisfies the requirements of this rule.

(l) Condition D.1.7 - Mercury Limitations was revised to clarify that this is a PSD minor limit not a BACT limit.

(m) Condition D.1.8(e) - Visible Emission Limitations - Best Available Control Technology was revised to cite the CP in which the limit was established.

(n) Conditions D.1.12 - Particulate Emission Limitations for Manufacturing Processes and D.13.1 - Particulate have been updated to add other emission units which are subject to 326 IAC 6-3-2.

(o) Sections D.1, D.2, D.4, D.5, and D.10 have been updated to include the appropriate requirements under 40 CFR 64 (CAM).

(p) Several Conditions have been modified to remove requirements specific to either a multi-compartment baghouse, a single compartment baghouse controlling a continuously operated process, or a single compartment baghouse controlling a batch process. The option applicable to the type of baghouse in that Section remains.

(q) The Permittee has removed COM technology for the EAFs. Requirements associated with COMs have been removed for these units. Note - COM technology was one of multiple compliance options the Permittee had in this permit. The other compliance options remain; however, new downtime monitoring provisions have been added.

(r) Condition D.1.19(a) - Record Keeping Requirements has been removed since there is not a corresponding limitation for this requirement.

(s) Multiple BACT Conditions were revised to clarify that the pound per ton limit referred to pound per ton "of steel produced."

(t) Condition D.4.1 - Particulate Matter Emissions Limitations - Best Available Control Technology (BACT) was modified to match the original BACT determined in CP 033-5625-00043.

(u) The 326 IAC 6-2-4 limitation for the pickle line boilers has been revised to match the underlying rule.

(v) The NOx BACT limitations for the pickle line boilers have been combined into one condition.

(w) The VOC PSD minor limit for the curing ovens and thermal oxidizer associated with the 2-side, 2-coat, coil-coating line have been revised from MMBtu per hour to MMBtu per twelve (12) consecutive month period. This change will still ensure VOC emissions from these units are still less than 0.02 tons per twelve (12) consecutive month period. This change allows for small operating fluctuations in the heat input rate.

(x) Condition D.10.3 - Preventive Maintenance Plan has been revised to only include the control device for the coil coating line since the coil coating line is not required to have a PMP.

(y) Condition D.10.7 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) has been revised to remove reference to specific permit numbers as these are unnecessary in compliance determination conditions.

(z) The equations in Condition D.10.10 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) have been revised to reflect that the 2-side, 2-coat coil line is required to have 100 % capture of emissions.

(aa) Thermal Oxidizer parametric monitoring has been split into 2 conditions and the language revised for clarification purposes.

(bb) The Quarterly Report for the 2-sided, 2-coat coil coating line (paint line) has been revised to better match the single HAP limit in Condition D.10.1- Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

(cc) The units previously in Section D.13 of the permit have been divided up into new D Sections based upon rule applicability. New conditions have been added to incorporate applicable NSPS, NESHAP, and 326 IAC 6-2-4 requirements.

(dd) ID's for the gasoline and diesel storage tanks and dispensing operations have been revised.

(ee) Diesel Storage Tank #3 and diesel dispensing operation F3 will now dispense gasoline. Unit descriptions have been changed and new throughout requirements for 326 IAC 8-4-6 and 40 CFR 63, Subpart CCCCCC applicability have been added.

(ff) Report forms were updated to match IDEM, OAQ's current form models.

(gg) Per the Permittee's request, the Fugitive Dust Control Plan has been modified.

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

The source consists of:

***

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033~~-8068~~-00043) and Steel Dynamics, Inc. - Iron Dynamics Division (033-~~12614-~~00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. - Flat Roll Division, the primary operation.

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

Steel Dynamics, Inc. - Flat Roll Division consists of the following emission units and pollution control devices:

Melt Shop Operations

***

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are ~~controlled~~ **captured** by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

(1) ~~One (1)~~ **Two (2)** ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour**,** permitted in 1994 for construction;

(2) ~~Four (4)~~ **Five (5)** ladle~~s~~ preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 and one (1) permitted in 1995 for construction;

***

(d) Storage Silos and Bins

(1) Twenty - one (21) storage silos including the following:

***

(E) One (1) carbon injection silo, permitted in 1997 for construction, with ~~a nominal capacity of 2,300 cubic feet~~**emissions controlled by bin vents**, exhausting through Stack 46.

***

Pickle Line Boilers

Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour. ~~Only two (2) boilers will be utilized at any given time.~~

***

Paint Line (Coil Coating Line)

(a) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour **name plate rated** heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

***

Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

***

(c) One (1) ~~30"~~**42"** conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(d) ***

(e) One (1) ~~24"~~**30"** conveyor (#6), with a nominal capacity of 100 tons per hour, permitted in 1994 for construction;

***

(i) One (1) ~~24"~~**30"** Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

***

Emergency Generators

(a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

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

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

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-2-4]

(1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr.

(b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower. [40 CFR 63, Subpart ZZZZ]

(1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a rated capacity of 500 Kw (670 hp). [40 CFR 60, Subpart IIII]

(c) 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. This facility includes the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

(d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]

(1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.

(2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

A.4**5** Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(1~~5~~**4**)]

Steel Dynamics, Inc. - Flat Roll Division also includes the following insignificant activities:

~~1. Specifically regulated insignificant activities, which are specifically regulated as defined in 326 IAC 2-7-1(21): One (1) Temper Mill [326 IAC 6-3-2]~~

~~2. Other Insignificant Activities~~

~~(a) Space heaters, process heaters, or boilers using the following fuels:~~

~~(i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.~~

~~(ii) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.~~

~~(b) Equipment powered by diesel fuel fired or natural gas fired internal combustion engines of capacity equal to or less than five hundred thousand (500,000) British thermal units per hour except where total capacity of equipment operated by one (1) stationary source as defined by subdivision (38) exceeds two million (2,000,000) British thermal units per hour.~~

(~~c~~**a**) Combustion source flame safety purging on startup.

(~~d~~**b**) Fuel dispensing activities, including the following:

(~~i~~**1**) 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. This facility includes ~~the following~~:

~~(A) One (1) gasoline storage tank, approved in 2013 for construction, identified as T1 or Gasoline Tank #1, with a storage capacity of two thousand (2,000) gallons.~~

~~(B) One (1)~~ **Two (2)** gasoline dispensing operation**s**, approved in 2013 for construction, identified as F~~1~~ **T2 and T3**.

(~~ii~~**2**) 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. A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thirty thousand (230,000) gallons per month. This facility includes the following:

(A) One (1) diesel storage tank, approved in 2013 for construction, identified as T~~2~~**1** or Diesel Storage Tank #1, with a ~~maximum~~ **nominal** storage capacity of two thousand (2,000) gallons.

(B) ~~Two (2)~~ **One (1)** diesel storage tank~~s~~, approved in 2013 for construction, identified as ~~T3 and~~ T4 or Diesel Storage Tank~~s~~ #~~2~~**4** ~~and #3~~, ~~each~~ with a ~~maximum~~ **nominal** storage capacity of five thousand (5,000) gallons.

(C) ~~Three (3)~~ **Two (2)** diesel dispensing operations, approved in 2013 for construction, identified as ~~F2, F3,~~**T1** and ~~F~~ **T**4.

(~~e~~**c**) The following VOC and HAP storage containers:

(~~i~~**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.

(~~ii~~**2**) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(~~f~~**d**) Refractory storage not requiring air pollution control equipment.

(~~g~~**e**) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.

(~~h~~**f**) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

(~~i~~**g**) Machining where an aqueous cutting coolant continuously floods the machining interface.

(~~j~~**h**) Closed loop heating and cooling systems.

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

~~(l) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPS.~~

(~~m~~**j**) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner or Operator, that is, an on-site sewage treatment facility.

(~~n~~**k**) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.

(~~o~~**l**) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

(~~p~~**m**) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(~~q~~**n**) Heat exchanger cleaning and repair.

(~~r~~**o**) Process vessel degassing and cleaning to prepare for internal repairs.

~~(s) Covered conveyors for solid raw material, including the following:~~
~~(i) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.~~
~~(ii) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.~~

(~~t~~**p**) Purging of gas lines and vessels that is related to 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.

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

(~~v~~**r**) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(~~b~~**s**) ~~Activities associated with emergencies, including the following:~~
~~(i)~~ On-site fire training approved by the department.

~~(ii) Emergency generators as follows: Gasoline generators not exceeding one hundred ten (110) horsepower and Diesel generators not exceeding one thousand six hundred (1,600) horsepower.~~

~~(iii) Stationary fire pump engines.~~

(t) Purge double block and bleed valves.

(u) Filter or coalescer media changeout.

(~~w~~**v**) A laboratory as defined in 326 IAC 2-7-1(21)(D)

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

(~~y~~**x**) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).

(~~z~~**y**) Brazing equipment, cutting torches, soldering equipment, and welding equipment related to manufacturing activities not resulting in emissions of HAPs.

(z) One (1) electric Temper Mill, used to align steel fibers, with no emissions.

***

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

~~Except for the construction authorizations in these permits, all terms and conditions applicable to this source contained in the following permits:~~

~~Permit Number~~	~~Issuance Date~~
~~033-3692-00043~~	~~October 7, 1994~~
~~033-4997-00043~~	~~November 16, 1995~~
~~033-5625-00043~~	~~August 8, 1996~~
~~033-8091-00043~~	~~June 25, 1997~~
~~033-9187-00043~~	~~March 24, 1998~~
~~033-9752-00043~~	~~August 18, 1998~~
~~033-9506-00043~~	~~September 1, 1998~~
~~033-15186-00043~~	~~February 11, 2002~~
~~033-15836-00043~~	~~December 31, 2002~~
~~033-16638-00043~~	~~January 21, 2003~~
~~033-16981-00043~~	~~January 21, 2003~~
~~033-23028-00043~~	~~October 26, 2007~~
~~033-24411-00043~~	~~December 19, 2007~~
~~033-27843-00043~~	~~July 10, 2009~~
~~033-28134-00043~~	~~December 30, 2009~~
~~033-28510-00043~~	~~February 11, 2011~~

~~issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. Except for the construction authorizations of these permits, these prior permits and all of their terms and conditions are hereby superseded.~~

(a) All terms and conditions of permits established prior to T033-30061-00043 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.

***

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

***

~~Alternative Operating Scenario~~

~~C.21 Alternative Operating Scenario~~

~~The Permittee may use propane gas as an alternative fuel for natural gas during emergency situations.~~

SECTION D.1 FACILITY OPERATION CONDITIONS (MELT SHOP)

~~Facility Description [326 IAC 2-7-5(15)]:~~ **Emission Unit Description:**

Melt Shop Operations

***

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are ~~controlled~~ **captured** by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

(1) ~~One (1)~~ **Two (2)** ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour**,** permitted in 1994 for construction;
(2) ~~Four (4)~~ **Five (5)** ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 for construction and one (1) permitted in 1995 for construction;
(3) Three (3) natural gas-fired tundish dryers with nominal heat input capacity of 1.5 MMBtu per hour each one (1) permitted in 1994 and two (2) permitted in 1995 for construction;
(4) Two (2) natural gas-fired tundish ladle preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and
(5) Lancing and cutting of skulls, coils and steel scrap.

***

(d) Storage Silos and Bins

(1) Twenty - one (21) storage silos including the following:

***

(E) One (1) carbon injection silo, permitted in 1997 for construction, with ~~a nominal capacity of 2,300 cubic feet~~**emissions controlled by bin vents**, exhausting through Stack 46.

~~D.1.1 Particulate Matter (PM) Limitations [40 CFR Part 60, Subpart AAa]~~

~~Pursuant to 40 CFR 60, Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarbonization Vessels Constructed After August 17, 1983), filterable particulate matter emissions from the EAF baghouses, due solely to EAF operations, shall not exceed 0.0052 grains per dry standard cubic feet.~~

D.1.~~2~~**1** Particulate (PM/PM-10) Limitations - Best Available Control Technology [326 IAC 2-2]

***

(b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), PM/PM10 emissions from the continuous casters shall be ~~controlled~~ **captured** by canopy hoods and exhausted to EAF baghouse 1 and then to Stack 01. Baghouse 1 shall be operated at all times when the continuous casters are in operation.

***

D.1.~~3~~**2** Nitrogen Oxides (NOx) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the **total** NO_x emissions from the EAF~~s~~**#1 South (Stack 01) and EAF#2 North (Stack 92)** using low-NOx natural gas fired burners shall

not exceed 0.51 pounds per ton of steel produced~~. The total NOx emissions shall not exceed~~ **and** 204.0 pounds per hour.

D.1.~~4~~**3** Sulfur Dioxide (SO2) Limitations - Best Available Control Technology [326 IAC 2-2]**[326 IAC 7-1.1]**

***

D.1.~~5~~**4** Carbon Monoxide (CO) Limitations - Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD – Control Technology Review; Requirements), the CO emissions from EAFs shall be controlled by an adjustment gap between the EAF direct shell evacuation system (DSE) and the remaining water cooled duct to common baghouse. The CO emissions from each EAF shall not exceed 2.0 pounds per ton of hot steel produced. The total emissions from EAF #1 South (Stack 1) and EAF #2 North (Stack 92) shall not exceed 800 pounds per hour. A negative pressure shall be maintained at the gap. The direct shell evacuation system, Baghouse 1, and Baghouse 2 shall be operated at all times when the EAF~~s~~ **exhausting to it** ~~are~~ **is** in operation.

D.1.~~6~~**5** Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements):

(a) VOC emissions from EAFs shall be controlled through a scrap management program. The Permittee shall implement the SMP, which shall be in writing and available for inspection. The SMP shall provide at a minimum:

(1) All grades of scrap charged to the furnaces shall not contain excessive non-metallics.

(2) All grades of scrap shall not contain excessive oil and grease.

(3) Heavily oiled scrap shall not be used.

(b) **Total** VOC emissions from the EAF EAF~~s~~**#1 South (Stack 01) and EAF#2 North (Stack 92)** shall be limited to 0.13 pounds of VOC emissions per ton of steel produced~~. The total VOC emissions from EAF #1 South (Stack 1) and EAF #2 North (Stack 92)~~ **and** shall not exceed 52.0 pounds per hour.

***

D.1.~~8~~**7** Mercury **PSD Minor Limit** ~~Limitations~~ [326 IAC 2-2]

~~Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD Control Technology Review Requirements)~~, **T**~~t~~he total mercury emissions from EAF Baghouse 1 and EAF Baghouse 2 shall not exceed 0.022 pounds per hour. Compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable **to CP 033-8091-00043**.

***

D.1.8 Visible Emission Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), visible emissions from the EAF Baghouse 1 and EAF Baghouse 2 stack exhausts (Stack 1 and Stack 92, respectively) shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in

accordance with 40 CFR Part 60, Appendix A, Method 9). ~~This condition will satisfy the NSPS 40 CFR Part 60 Subpart AAa, 40 CFR 60.272a.~~

***

(e) Pursuant to ~~A 033-4997-00043, issued November 16, 1995~~ **CP 033-3692-00043, issued October 7, 1994** and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the carbon and flux additive system conveyors and transfer points shall be enclosed and vented indoors.

~~D.1.10 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]~~

~~The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the EAFs, except when otherwise specified in 40 CFR Part 60, Subpart AAa.~~

~~D.1.11 Visible Emissions Limitations (NSPS) [40 CFR Part 60.272(a)]~~

~~(a) Pursuant to 40 CFR 60.272(a)(2), the visible emissions from the EAF Baghouse 1 and EAF Baghouse 2 stack exhausts (Stack 1 and Stack 92, respectively) shall not exceed three percent (3%) opacity, based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).~~

~~(b) Pursuant to 40 CFR 60.272(a)(3), the visible emissions from the melt shop due solely to the operations of the electric arc furnace shall not exceed six percent (6%) opacity, based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).~~

~~(c) Pursuant to 40 CFR 60.272(b), the visible emissions from the EAF dust handling system shall not exceed ten percent (10%) opacity, based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).~~

***

D.1.~~12~~**11** Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]~~[40 CFR 60, Subpart AAa]~~

***

D.1.~~13~~**12** Particulate Control

~~(a)~~ Bin vent filter 5c shall control **filterable** emissions from EAF dust silo 5c at all times necessary to meet the requirements of Condition D.1. 1(d) – Particulate (PM/PM-10) Limitations – Best Available Control Technology.

***

~~D.1.18 New Source Performance Standards – Emission Monitoring [40 CFR 60.273a][40 CFR 64]~~

~~Pursuant to 326 IAC 12 and 40 CFR 60.273a:~~

~~(a) Except as provided under paragraphs (b) and (c) of this section, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of this subpart.~~

~~(b) No continuous monitoring system shall be required on any control device serving the dust-handling system.~~

~~(c) A continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) is not required on any modular, multi-stack, negative-pressure or positive-pressure fabric filter if observations of~~

~~the opacity of the visible emissions from the control device are performed by a certified visible emission observer; or on any single-stack fabric filter if visible emissions from the control device are performed by a certified visible emission observer and the owner installs and continuously operates a bag leak detection system according to paragraph (e) of this section. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in §60.272a(a).~~

~~(d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.~~

~~(e) A bag leak detection system must be installed and continuously operated on all single-stack fabric filters if the owner or operator elects not to install and operate a continuous opacity monitoring system as provided for under paragraph (c) of this section. In addition, the owner or operator shall meet the visible emissions observation requirements in paragraph (c) of this section. The bag leak detection system must meet the specifications and requirements of paragraphs (e)(1) through (8) of this section.~~

~~(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 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 bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (e)(4) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.~~

~~(4) For each bag leak detection system required by paragraph (e) of this section, the owner or operator shall develop and submit to the Administrator or delegated authority, for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of this paragraph (e)(4). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall 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). 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 shall describe the following:~~

~~(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; and~~

~~(v) How the bag leak detection system output shall be recorded and stored.~~

~~(5) The initial adjustment of the system shall, at a 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).~~

~~(6) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided for in paragraphs (e)(6)(i) and (ii) of this section.~~

~~(i) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraphs (e)(4) of this section.~~

~~(ii) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under paragraph (c) of this section and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.~~

~~(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.~~

~~(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.~~

~~(f) For each bag leak detection system installed according to paragraph (e) of this section, the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under paragraph (g) of this section, the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:~~

~~(1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;~~

~~(2) Sealing off defective bags or filter media;~~

~~(3) Replacing defective bags or filter media or otherwise repairing the control device;~~

~~(4) Sealing off a defective baghouse compartment;~~

~~(5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and~~

~~(6) Shutting down the process producing the particulate emissions.~~

~~(g) In approving the site-specific monitoring plan required in paragraph (e)(4) of this section, the Administrator or delegated authority may allow owners or operators more than 3 hours to alleviate specific conditions that cause an alarm if the owner or operator identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable.~~

~~[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6672, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]~~

D.1.14 Bag Leak Detection System (BLDS)

The Permittee shall comply with the following:

(a) The Permittee shall install and operate a continuous bag leak detection system (BLDS) on EAF Baghouse #1 and EAF Baghouse #2.

(b) The BLDS shall meet the following requirements:

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.00044 grains per actual cubic foot or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loading.

(3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test or established according to paragraph (4). The alarm must be located such that it can be heard by the appropriate plant personnel.

(4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(5) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse, is in good operating condition.

(6) Failure to take response steps shall be considered a deviation from this permit.

(7) Whenever a BLDS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup BLDS is not

online within twenty-four (24) hours of shutdown or malfunction of the primary BLDS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(A) Opacity from the EAF Baghouse #1 and EAF Baghouse #2 shall be performed at least once per day during normal daylight operations. A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.

(B) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.

(C) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C.15 – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. Abnormal emissions are not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

***

~~D.1.19 New Source Performance Standards – Monitoring of Operations [40 CFR 60.274a]~~

~~Pursuant to 326 IAC 12 and 40 CFR 60.274a:~~

~~(a) The owner or operator subject to the provisions of this subpart shall maintain records of the following information:~~

~~(1) All data obtained under paragraph (b) of this section; and~~

~~(2) All monthly operational status inspections performed under paragraph (c) of this section.~~

~~(b) Except as provided under paragraph (e) of this section, the owner or operator subject to the provisions of this subpart shall check and record on a once-per-shift basis the furnace static pressure (if DEC system is in use, and a furnace static pressure gauge is installed according to paragraph (f) of this section) and either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Administrator may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of appendix A of this part.~~

~~(c) When the owner or operator of an affected facility is required to demonstrate compliance with the standards under §60.272a(a)(3) and at any other time that the Administrator may require (under section 114 of the CAA, as amended) either: the control system fan motor amperes and all damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to paragraph (b) of~~

~~this section. The owner or operator may petition the Administrator for reestablishment of these parameters whenever the owner or operator can demonstrate to the Administrator's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of §60.276a(c).~~

~~(d) Except as provided under paragraph (e) of this section, the owner or operator shall perform monthly operational status 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 shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.~~

~~(e) The owner or operator may petition the Administrator to approve any alternative to either the monitoring requirements specified in paragraph (b) of this section or the monthly operational status inspections specified in paragraph (d) of this section if the alternative will provide a continuous record of operation of each emission capture system.~~

~~(f) Except as provided for under §60.273a(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.~~

~~(g) Except as provided for under §60.273a(d), when the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under §60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under paragraph (f) of this section. The owner or operator may petition the Administrator for reestablishment of the pressure whenever the owner or operator can demonstrate to the Administrator's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility.~~

~~(h) During any performance test required under §60.8, and for any report thereof required by §60.276a(f) of this subpart, or to determine compliance with §60.272a(a)(3) of this subpart, the owner or operator shall monitor the following information for all heats covered by the test:~~

~~(1) Charge weights and materials, and tap weights and materials;~~

~~(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;~~

~~(3) Control device operation log; and~~

~~(4) Continuous opacity monitor or Method 9 data.~~

~~[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]~~

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D.1.~~19~~**15** Record Keeping Requirements

~~(a) To document the compliance status with the Conditions D.1.3 - Nitrogen Oxides (NO_x) Limitations - Best Available Control Technology, D.1.4 - Sulfur Dioxide (SO_2) Limitations - Best Available Control Technology, D.1.5 - Carbon Monoxide (CO) Limitations - Best Available Control Technology, and D.1.6(b) - Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology, the Permittee shall record the metal throughput for the EAF operations.~~

(~~b~~**a**) To document **the** compliance **status** with Conditions D.1.~~9~~**8** - Visible Emission Limitations - Best Available Control Technology~~,~~ and 1.~~16~~**13** - Visible Emissions Notations, the Permittee shall maintain records of visible emission notations required by Condition D.1.~~16~~**13** - Visible Emissions Notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document the compliance status with condition D.1.14 – Bag Leak Detection System (BLDS), the Permittee shall maintain records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.

(c) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

~~D.1.21 Record Keeping and Reporting Requirements [40 CFR 60.276a]~~

~~Pursuant to 326 IAC 12 and 40 CFR 60.276a:~~

~~(a) Records of the measurements required in §60.274a must be retained for at least 2 years following the date of the measurement.~~

~~(b) Each owner or operator shall submit a written report of exceedances of the control device opacity to the Administrator semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.~~

~~(c) Operation at a furnace static pressure that exceeds the value established under §60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under §60.274a(c) or operation at flow rates lower than those established under §60.274a(c) may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Administrator semiannually.~~

~~(d) The requirements of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.~~

~~(e) When the owner or operator of an EAF or AOD is required to demonstrate compliance with the standard under §60.275 (b)(2) or a combination of (b)(1) and (b)(2) the owner or operator shall obtain approval from the Administrator of the procedure(s) that will be~~

~~used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.~~

~~(f) For the purpose of this subpart, the owner or operator shall conduct the demonstration of compliance with §60.272a(a) of this subpart and furnish the Administrator a written report of the results of the test. This report shall include the following information:~~

~~(1) Facility name and address;~~

~~(2) Plant representative;~~

~~(3) Make and model of process, control device, and continuous monitoring equipment;~~

~~(4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;~~

~~(5) Rated (design) capacity of process equipment;~~

~~(6) Those data required under §60.274a(h) of this subpart;~~

~~(i) List of charge and tap weights and materials;~~

~~(ii) Heat times and process log;~~

~~(iii) Control device operation log; and~~

~~(iv) Continuous opacity monitor or Method 9 data.~~

~~(7) Test dates and test times;~~

~~(8) Test company;~~

~~(9) Test company representative;~~

~~(10) Test observers from outside agency;~~

~~(11) Description of test methodology used, including any deviation from standard reference methods;~~

~~(12) Schematic of sampling location;~~

~~(13) Number of sampling points;~~

~~(14) Description of sampling equipment;~~

~~(15) Listing of sampling equipment calibrations and procedures;~~

~~(16) Field and laboratory data sheets;~~

~~(17) Description of sample recovery procedures;~~

~~(18) Sampling equipment leak check results;~~

~~(19) Description of quality assurance procedures;~~

~~(20) Description of analytical procedures;~~

~~(21) Notation of sample blank corrections; and~~

~~(22) Sample emission calculations.~~

~~(g) The owner or operator shall maintain records of all shop opacity observations made in accordance with §60.273a(d). All shop opacity observations in excess of the emission~~

~~limit specified in §60.272a(a)(3) of this subpart shall indicate a period of excess emission, and shall be reported to the administrator semi-annually, according to §60.7(c).~~

~~(h) The owner or operator shall maintain the following records for each bag leak detection system required under §60.273a(e):~~

~~(1) Records of the bag leak detection system output;~~

~~(2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and~~

~~(3) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.~~

~~[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]~~

~~D.1.22 Reporting Requirements [40 CFR 60.276a][326 IAC 3-5-7]~~

~~(a) If the Permittee elects to operate a COMs under Condition D.1.17 - New Source Performance Standards - Emission Monitoring, then the Permittee shall submit to IDEM, OAQ a quarterly excess emissions report, if applicable, based on the continuous opacity monitor (COM) data, pursuant to 326 IAC 3-5-7. These reports shall be submitted no later than thirty (30) calendar days following the end of each calendar quarter being reported. Condition C.18 - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition.~~

~~(b) The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).~~

D.1.16 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the Electric Arc Furnaces, except as otherwise specified in 40 CFR Part 60, Subpart AAa.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.1.17 Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 NSPS [40 CFR 60, Subpart AAa][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart AAa, the Permittee shall comply with the provisions of 40 CFR 60, Subpart AAa, which are incorporated by reference as 326 IAC 12 (included as Attachment B to this permit), for the Electric Arc Furnaces:

(1) 40 CFR 60.270a
(2) 40 CFR 60.271a
(3) 40 CFR 60.272a
(4) 40 CFR 60.273a
(5) 40 CFR 60.274a
(6) 40 CFR 60.275a
(7) 40 CFR 60.276a

D.1.~~23~~**18** General Provisions Relating to National Emission Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.10690, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the electric arc furnace steelmaking facilities as specified in ~~Table 1 of~~ 40 CFR 63, Subpart YYYYY, in accordance with schedule in 40 CFR 63 Subpart YYYYY.

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

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

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.1.~~24~~**19** ~~National Emission Standards for Hazardous Air Pollutants for~~ Area Sources: Electric Arc Furnace Steelmaking Facilities **NESHAP** [40 CFR Part 63, Subpart YYYYY]

Pursuant to 40 CFR Part 63, Subpart YYYYY, t~~T~~he Permittee shall comply with the following provisions of 40 CFR 63, Subpart YYYYY (included as Attachment ~~B~~**C to this permit**), **for the electric arc furnace steelmaking facilities**:

(1) 40 CFR 63.10680(a), (b)(1), (c) and (d)
(2) 40 CFR 63.10681(a)
(3) 40 CFR 63.10685~~(a), (b)(1), (b)(2)(i)(iv), (c)(1), and (c)(2)~~
(4) 40 CFR 63.10686(a), (b), (d)(1) – (d)(4), (d)(6)~~, (e)~~
(5) 40 CFR 63.10690
(~~5~~**6**) 40 CFR 63.10692
(~~6~~**7**) Table 1 to 40 CFR 63, Subpart YYYYY

***

D.2.2 Nitrogen Oxides (NOx) Limitations- Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the NOx emissions from the LMF Stack 61 shall not exceed 0.025 pounds per ton **of steel produced** and 10 pounds of NOx emissions per hour.

D.2.4 VOC Minor Limitations [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998, and Significant Permit Modification No. 033-28134-00043, VOC emissions from the LMF Stack 61 shall not exceed 0.0082 pounds per ton **of steel produced** and 3.28 pounds of VOC per hour.

Compliance with these emission limits will ensure that the VOC emissions from CP 033-9187-00043 are less than forty (40) tons per year and therefore will render the requirements of 326 IAC 2-2 not applicable to CP 033-9187-00043 for VOC.

***

D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

***

(d) ~~Not later than twelve (12) months after issuance of Significant Permit Modification No. 033-28134-00043 and~~ **I**~~i~~n order to demonstrate compliance with Condition D.2.4 – VOC Minor Limitations, the Permittee shall perform VOC testing on the LMF Stack 61, utilizing testing methods approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

***

D.2.9 Visible Emission Notations **[40 CFR 64]**

(a) ~~Pursuant to CP 033-9187-00043, issued March 24, 1998, V~~**V**~~v~~isible emission notations of the LMF Baghouse Stack 61 exhaust, shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

***

D.2.10 Parametric Monitoring **[40 CFR 64]**

***

D.3.1 Nitrogen Oxides (NOx) Limitations - Best Available Control Technology [326 IAC 2-2]

(a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 1 shall be equipped with low NOx natural gas fired burners and **total** NOx emissions shall not exceed 0.17 pounds per MMBtu~~. The total emissions per hour shall not exceed~~ **and** 20.0 pounds per hour through Stack 2.

(b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 2 heating zone shall be equipped with low NOx natural gas fired burners and **total** NOx emissions shall not exceed 0.10 pounds per MMBtu~~. The total emissions per hour shall not exceed~~ **and** 9.2 pounds per hour through Stack 42.

***

D.4.1 Particulate Matter Emissions Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the pickle line particulate matter emissions shall be controlled by a scrubber **with mist eliminator** and the filterable particulate matter emissions from Stack 17 shall not exceed 1.23 pounds per hour. The scrubber **with mist eliminator** shall be operated at all times when the pickle line is in operation.

D.4.2 Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation [40 CFR 63~~, Subpart CCC~~**.1**]

Pursuant to CP 033-5625-00043, issued August 8, 1996, **and to ensure the Permittee meets the definition of an area source under 40 CF R 63.2,** the hydrochloric acid mist from the pickle line shall be controlled by a scrubber ~~and~~ **with** mist eliminator. Emissions shall not exceed 0.32 pounds per hour. The scrubber and mist eliminator shall be operated at all times when the pickle line is in operation.

Compliance with this limit and the potential to emit from all other units, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

***

D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to ~~comply~~**demonstrate compliance** with Condition D.4.2 - Hydrochloric Acid (HC~~L~~**l**) Pickling HAP Minor Emission Limitation, the Permittee shall perform a hydrochloric acid test on the pickle line Stack 17, utilizing methods as approved by the Commissioner at least once **every** five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.8 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.4.5 Parametric Monitoring **[40 CFR 64]**

***

D.4.6 Scrubber Failure Detection

In the event, a scrubber failure has been observed:

~~(a)~~ For a scrubber 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 (Condition B.11 - Emergency Provisions).

~~(b) For a scrubber controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Condition B.11 - Emergency Provisions).~~

D.4.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.5 - Parametric Monitoring, the Permittee shall maintain records of the once per day pickle line scrubber flow rate **reading** ~~when the pickle line is in operation~~. The Permittee shall include in its daily record when a flow rate reading is not taken and the reason for the lack of a flow rate reading (e.g. the process did not operate that day).

(b) Condition C.17 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.5.4 Visible Emission Notations **[40 CFR 64]**

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SECTION D.6 FACILITY OPERATION CONDITIONS (PICKLE LINE BOILERS)

~~Facility Description [326 IAC 2-7-5(14)]:~~ **Emission Unit Description:**

Pickle Line Boilers

Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 for construction and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.

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

***

D.6.~~0~~**1** ~~Particulate Emission Limitations [326 AC 6-2-4] and~~ Nitrogen Oxides (NOx) Limitations – Best Available Control Technology (BACT) [326 IAC 2-2]

(a) Pursuant to ~~326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) and~~ 326 IAC 2-2 (BACT), only two of the three boilers Nos. 1, 2 and 3, shall be utilized at any time.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the pickle line boilers shall not exceed 81 pounds per million cubic feet (MMCF) of gas burned.

D.6.~~1~~**2** Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions ~~shall not exceed 0.42 pound per MMBtu heat input from the pickle line boilers with a combined heat input of 40.8 MMBtu per hour~~ **from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:**

Emission Unit	Unit ID	Pt (lb/MMBtu)
Pickle Line Boiler	**No. 1**	**0.40**
Pickle Line Boiler	**No. 2**	**0.40**
Pickle Line Boiler	**No. 3**	**0.40**

~~D.6.2 Nitrogen Oxides (NOx) Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]~~

~~Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the pickle line boilers shall not exceed 81 pounds per million cubic feet (MMCF) of gas burned.~~

~~D.6.3 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]~~

~~The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the pickle line boilers except when otherwise specified in 40 CFR Part 60, Subpart Dc.~~

~~D.6.4 Particulate (PM/PM-10) and Sulfur Dioxide (SO2) Limitations (NSPS) [40 CFR 60, Subpart Dc] [326 IAC 12-1]~~

~~Pursuant to CP 033-5625-00043, issued August 8, 1996, 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial Boilers Commercial-Institutional Steam Generating Boilers) and 326 IAC 12-1, the pickle line boilers shall burn natural gas only in order to minimize particulate and sulfur dioxide emissions.~~

D.6.~~5~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(12)]

***

D.6.~~6~~**4** Record Keeping Requirements

~~(a) To document the compliance status with Condition D.6.4 - Particulate (PM/PM-10) and Sulfur Dioxide (SO2) Limitations (NSPS), the Permittee shall maintain records of the natural gas usage for the boilers.~~

(~~b~~**a**) To document the compliance status with Condition D.6.~~2~~**1** - Nitrogen Oxide (NOx) Limitations - Best Available Control Technology, the Permittee shall maintain records of when Boiler No. 3 is used as a backup for Boiler No. 1 or Boiler No. 2.

(~~c~~**b**) ***

D.6.5 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

D.6.6 Small industrial Boilers, Commercial-Institutional Steam Generating Boilers NSPS [40 CFR 60, Subpart Dc][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR 60, Subpart Dc, which are incorporated by reference in 326 IAC 12 (included as Attachment D to this permit), for the above listed emissions units as specified as follows.

(1) 40 CFR 60.40c (a)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c (a)(1 - 3), (g), (i)

D.9.2 Nitrogen Oxides (NOx) - Best Available Control Technology (BACT) [326 IAC 2-2]

(a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the annealing furnaces shall not exceed 200 pounds per MMCF of natural gas burned.

(b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall be **equipped with** low-NOx burners.

SECTION D.10 FACILITY OPERATION CONDITIONS (PAINT LINE)

~~Facility Description [326 IAC 2-7-5(15)]:~~ **Emission Unit Description:**

Paint Line (Coil Coating Line)

(a) One (1) 2-side, 2-coat coil coating line, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, using a 60 MMBtu per hour **nominal** heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

***

D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit [326 IAC 2-2][40 CFR ~~Subpart SSSS~~**63.1**]

Pursuant to SSM 033-15836-00043, issued December 31, 2002 ~~and 326 IAC 2-2 (Prevention of Significant Deterioration) to maintain the minor status for this modification,~~ the VOC emissions shall be limited as follows:

(a) For the 2-side, 2-coat, coil-coating line the input of VOC shall be limited to less than 3894 tons per twelve (12) consecutive month period, with **the** compliance **status** demonstrated at the end of each month. ~~This VOC usage limitation in conjunction with the operation of thermal oxidizer at 99% overall control efficiency limits VOC emissions from the coil coating line to less than 38.94 tons per twelve (12) consecutive month period.~~

(b) The combined heat input rate for the two curing ovens shall not exceed ~~16~~ **140,160** million Btu per ~~hour~~ **twelve (12) consecutive month period** and ~~that~~ for the thermal oxidizer shall not exceed ~~60~~ **525,600** million Btu per ~~hour~~ **twelve (12) consecutive month period**. ~~This limits the VOC emissions from the curing ovens to less than 0.02 tons per twelve (12) consecutive month period.~~

(c) The thermal oxidizer controlling the 2-side, 2-coat, coil-coating line shall be in operation and achieve 99% overall VOC control at all times the 2-side, 2-coat, coil-coating line is in operation.

(~~c~~**d**) **Compliance with** ~~The~~ items (a)**,** ~~and~~ (b)**, and (c)** combined, limits the VOC emissions from the 2-side, 2-coat coil coating line modification to less than **forty (**40**)** tons per 12 consecutive months period, with **the** compliance **status** demonstrated at the end of each month **and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD)) not applicable to this modification**. ~~This limit pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) makes this modification minor under this rule.~~

(~~d~~**e**) Pursuant to PSD SSM 033-23028-00043, issued October 26, 2007:

(1) The single HAP emissions from the coil coating line shall be limited to less than 10 tons per twelve (12) consecutive month period, with **the** compliance **status** demonstrated at the end of each month.

***

Compliance with these limits and requirements, in conjunction with HAP limits on SDI - IDD's rotary hearth furnace**, SDI-IDD's RHF Fugitives Baghouse, SDI - IDD's submerged arc furnace, SDI - IDD Unit S79,** ~~and~~ SDI - Flat Roll Division's pickle line, **and the potential to emit from all other units,** limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders ~~the requirements of 40 CFR Part 63, Subpart SSSS not applicable~~ **this an area source under 40 CFR Part 63.**

D.10.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-4]

***

(b) Pursuant to 326 IAC 8-1-2 (b), the coil coating line VOC emissions shall be limited to no greater than the equivalent emissions, 4.02 pounds of VOC per gallon of coating solids, allowed in (a).

The equivalency emissions are determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

L	=	Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating.
D	=	Density of VOC in coating in pounds per gallon of VOC.
E	=	Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine **the** compliance **status** of the coil coating operation using the compliance methods in 326 IAC 8-1-2 (a).

***

~~D.10.3 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR 60, Subpart A]~~

~~The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart TT.~~

~~D.10.4 Metal Coil Surface Coating NSPS [326 IAC 12-1-1][40 CFR 60, Subpart TT]~~

~~This facility is subject to 40 CFR 60, Subpart TT, which is incorporated by reference in 326 IAC 12-1-1. Permittee shall not cause to be discharged into the atmosphere more than:~~

~~(a) 1.17 pounds of VOC per gallon of coating solids applied for each calendar month for 2-side, 2-coat, coating line that continuously uses a thermal oxidizer operated at the most recently demonstrated overall efficiency.~~

~~-or-~~

~~(b) 10 percent of the VOCs applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency.~~

D.10.~~5~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the **thermal oxidizer associated with the** coil coating operation ~~and associated control device~~. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

***

D.10.~~7~~**5** Thermal Oxidizer

(a) The thermal oxidizer shall operate with a control efficiency of not less than 99% at all times that the 2-side, 2-coat, coil coating line is in operation. This efficiency is necessary to ensure compliance with conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit~~, D.10.2 - Volatile Organic Compounds (VOC), and D.10.4 - Metal Coil Surface Coating NSPS~~.

(b) In order to demonstrate compliance with Condition D.10.2 - Volatile Organic Compounds (VOC), the thermal oxidizer shall be in operation and control emissions from the 2-side, 2-coat, coil coating line at all times that the 2-side, 2-coat, coil coating line is in operation.

***

~~D.10.8 Testing Requirements [326 IAC 12, 40 CFR 60.463]~~

~~(a) The Permittee shall conduct a performance test for each calendar month for each affected facility according to the procedures under condition D.10.8(c), (d), (e), and (f).~~

~~(b) 40 CFR 60.8(d) and (f) do not apply to the performance test.~~

~~(c) The Permittee shall determine the overall reduction efficiency (R) for the capture system and the control device to determine compliance with condition D.10.4(b).~~

~~The Permittee may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in paragraphs (c) (1), (2), and (3) of this section, shall be repeated when directed by the Administrator, IDEM, OAQ or when the Permittee elects to operate the control device or capture system at conditions different from the initial performance test.~~

~~(1) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:~~

$$F = \frac{\sum_{i=1}^{l} C_{bi} Q_{bi}}{\sum_{i=1}^{l} C_{bi} Q_{bi} + \sum_{i=1}^{p} C_{fi} Q_{fi}}$$

~~Where:~~

~~C_b = the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).~~
~~Q_b = the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).~~
~~C_{fi} = the VOC concentration in each gas stream emitted directly to the atmosphere (parts per million by volume, as carbon).~~
~~Q_{fi} = the volumetric flow rate of each gas stream emitted directly~~
~~l = the number of gas streams entering the control device, and~~
~~p = the number of gas streams emitted directly to the atmosphere.~~

~~(2) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:~~

$$E = \frac{\sum_{i=1}^{n} C_{bi} Q_{bi} - \sum_{i=1}^{m} C_a Q_a}{\sum_{i=1}^{n} C_{bi} Q_{bi}}$$

~~Where:~~

~~C_a = the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).~~

~~Q_a = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).~~

~~n = the number of gas streams entering the control device, and~~

~~m = the number of gas streams leaving the control device and entering the atmosphere.~~

~~The Permittee shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 60.466.~~

~~(3) Determine overall reduction efficiency (R) using the following equation:~~

~~R = EF~~

~~If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as specified in sections (d) and (e) below.~~

~~(d) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility as follows:~~

~~(1) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G) during each calendar month for each affected facility, except as provided under paragraph (c)(1)(iv) of 40 CFR 60.463 as follows:~~

~~(A) Calculate the mass of VOC's used (Mo+Md) during each calendar month for each affected facility by the following equation:~~

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$

~~Where:~~

~~M_o = Mass of VOC's in coatings consumed, as received in kilogram (kg)~~

~~M_d = Mass of VOC-solvent added to the coatings, in kg~~

~~L_c = the volume of each coating consumed, as received in liters~~

~~L_d = the volume of each VOC-solvent added to the coatings in liters (l)~~

~~W_o = the proportion of VOC's in each coating, as received (fraction by weight)~~

~~D_d = density of each VOC-solvent added to the coatings (kg/l)~~

~~$\Sigma L_{dj} D_{dj}$ = will be 0 if no VOC solvent is added to the coatings, as received~~
~~n = the number of different coatings used during calendar month, and~~
~~m = the number of different VOC solvents added to coatings used during the calendar month.~~

~~(B) Calculate the total volume of coating solids used (Ls) in each calendar month for each affected facility by the following equation:~~

$$\cancel{L_s = \sum_{i=1}^{n} V_{si} L_{ci}}$$

~~Where~~

~~V_s = the proportion of solids in each coating, as received (fraction by volume).~~
~~L_c = the volume of each coating consumed, as received in liters~~
~~L_s = total volume of solids used in a calendar month~~
~~n = the number of different coatings used during the calendar month.~~

~~(e) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:~~

$$\cancel{G = \frac{M_o + M_d}{L_s}}$$

~~(f) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:~~

~~N= G (1-R)~~

~~(g) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.~~

D.10.~~10~~**7** Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

~~Pursuant to SSM 033-15836-00043, issued December 1, 2002, and PSD SSM 033-23028-00043:~~

(a) **The c**~~C~~ompliance **status** with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to **the** previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

VOC emitted = [(VOC input) x (100 – Overall control efficiency of thermal oxidizer)] ~~+ [uncontrolled VOC]~~

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) If VOC emissions from the 2-side, 2-coat coil line exceed nine (9) tons for any twelve consecutive month period, or the Permittee chooses to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

HAP emitted = [(HAP input) x (100 - Overall control efficiency of thermal oxidizer)] ~~+ [uncontrolled HAP]~~

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

D.10.~~11~~**8** Thermal Oxidizer ~~[326 IAC 12, 40 CFR 60.464]~~**[40 CFR 64]**

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer to continuously record the combustion temperature of any effluent gases incinerated to achieve compliance with D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit~~,~~ **and** D.10.2 - Volatile Organic Compounds (VOC) ~~and D.10.4 - Metal Coil Surface Coating NSPS~~. This system shall have an accuracy of ±2.5oC or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater.

(b) The Permittee shall record all periods (during actual coating operations) in excess of 3 hours during which the **3-hour** average temperature in the thermal oxidizer used to control VOC emissions from an affected facility remains more than 28°C (50°F) below the temperature at which compliance with limit in D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit~~,~~ **and** D.10.2 - Volatile Organic Compounds (VOC) ~~and D.10.4 - Metal Coil Surface Coating NSPS~~ was demonstrated during the most recent measurement of thermal oxidizer efficiency required by D.10.~~7~~**5** - Thermal Oxidizer ~~- Prevention of Significant Deterioration (PSD)~~ and D.10.~~8~~**6** - Testing Requirements.

~~(c) The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.~~

(~~d~~**c**) ***

(~~e~~**d**) ***

(~~f~~**e**) ***

~~D.10.12 Record Keeping and Reporting Requirements [326 IAC 12, 40 CFR 60.465]~~

~~(a) The Permittee shall identify, record, and submit a written report to IDEM, OAQ every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under D.10.4 - Metal Coil Surface Coating NSPS. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to IDEM, OAQ, quarterly.~~

~~(b) The Permittee shall include in the quarterly reports, instances when the thermal oxidizer temperature drops as defined under D.10.11 - Thermal Oxidizer. If no such periods occur, the owner or operator shall state this in the report.~~

~~(c) The Permittee shall maintain at the source, for a period of at least two (2) years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. The Permittee shall maintain, at the source, daily records of the thermal oxidizer combustion temperature.~~

D.10.~~13~~**9** Record Keeping Requirements

(a) ***

(b) To document the compliance status with Conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.~~11~~**8**- Thermal Oxidizer, the Permittee shall maintain records in accordance with (1) through (2) below.

***

(c) If VOC emissions from the 2-side, 2-coat coil coating line equal or exceed nine (9) tons for any twelve (12) consecutive month period, ~~or~~ **then** the Permittee ~~chooses to~~ **shall** determine **the** compliance **status** with the HAP limits in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

D.10.11 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart TT.

(b) Pursuant to 40 CFR 60.19, 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 Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.10.12 Metal Coil Surface Coating NSPS [40 CFR 60, Subpart TT][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart TT, the Permittee shall comply with the provisions of 40 CFR 60, Subpart TT, which are incorporated by reference as 326 IAC 12 (included as Attachment E of this permit), for the above listed emissions units as specified as follows:

(1) 40 CFR 60.460
(2) 40 CFR 60.461
(3) 40 CFR 60.462 (a)(2), (a)(3)

(4) 40 CFR 60.463 (a), (b), (c)(2)
(5) 40 CFR 60.464 (a), (c)
(6) 40 CFR 60.465
(7) 40 CFR 60.466 (a - c)

***

SECTION D.11 FACILITY OPERATION CONDITIONS (SLAG PROCESSING)

Emission Unit Description:

A Slag Handling Operation owned and operated by Edward C. Levy Company - Butler Mill Service.

***

(c) One (1) ~~30"~~**42"** conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;

(d) ***

(e) One (1) ~~24"~~**30"** conveyor (#6), with a nominal capacity of 100 tons per hour, permitted in 1994 for construction;

***

(i) One (1) ~~24"~~**30"** Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

***

D.11.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]

(a) Pursuant to CP 033-3692-00043 issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from slag processing by at least 95 percent **(95%)** based on a filterable PM10 emission basis.

(b) Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from storage piles by eighty **percent** (80**%**) ~~percent~~.

***

D.12.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]~~[326 IAC 6-5]~~

Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from the paved roads, parking lots, unpaved roads, and traveled open areas by eighty **percent** (80%) ~~percent~~.

***

~~SECTION D.13 FACILITY OPERATION CONDITIONS~~

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

~~Insignificant Activities~~

1. ~~Specifically regulated insignificant activities, which are specifically regulated as defined in 326 IAC 2-7-1(21): One (1) Temper Mill [326 IAC 6-3-2]~~

2. ~~Other Insignificant Activities~~

~~(a) Space heaters, process heaters, or boilers using the following fuels:~~
~~(i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.~~
~~(ii) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.~~
~~(b) Activities associated with emergencies, including the following:~~
~~(i) On-site fire training approved by the department.~~
~~(ii) Emergency generators as follows: Gasoline generators not exceeding one hundred ten (110) horsepower and Diesel generators not exceeding one thousand six hundred (1,600) horsepower.~~
~~(iii) Stationary fire pump engines.~~
~~(c) Equipment powered by diesel fuel fired or natural gas fired internal combustion engines of capacity equal to or less than five hundred thousand (500,000) British thermal units per hour except where total capacity of equipment operated by one (1) stationary source as defined by subdivision (38) exceeds two million (2,000,000) British thermal units per hour.~~
~~(d) Combustion source flame safety purging on startup.~~
~~(e) Fuel dispensing activities, including the following:~~
~~(i) 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.~~
~~(A) One (1) gasoline storage tank, approved in 2013 for construction, identified as T1 or Gasoline Tank #1, with a maximum storage capacity of 2,000 gallons and a maximum throughput of 50,000 gallons per year.~~
~~(B) One (1) gasoline vehicle refueling operation, approved in 2013 for construction, identified as F1, with a maximum throughput of 50 Mgal per year.~~
~~(ii) 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. A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month. This facility includes the following:~~
~~(A) One (1) diesel storage tank, approved in 2013 for construction, identified as T2 or Diesel Storage Tank #1, with a maximum storage capacity of 2,000 gallons and a maximum throughput of 33,333 gallons per year.~~
~~(B) Two (2) diesel storage tanks, approved in 2013 for construction, identified as T3 and T4 or Diesel Storage Tanks #2 and #3, each with a maximum storage capacity of 2,000 gallons and a maximum throughput of 33,333 gallons per year.~~
~~(C) One (1) diesel vehicle refueling operation, approved in 2013 for~~

~~construction, identified as F2, with a maximum throughput of 100 Mgal per year.~~

~~(f) The following VOC and HAP storage containers:~~

~~(i) 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.~~

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

~~(g) Refractory storage not requiring air pollution control equipment.~~

~~(h) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.~~

~~(i) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.~~

~~(j) Machining where an aqueous cutting coolant continuously floods the machining interface.~~

~~(k) Closed loop heating and cooling systems.~~

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

~~(m) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPS.~~

~~(n) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner or Operator, that is, an on-site sewage treatment facility.~~

~~(o) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.~~

~~(p) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.~~

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

~~(r) Heat exchanger cleaning and repair.~~

~~(s) Process vessel degassing and cleaning to prepare for internal repairs.~~

~~(t) Covered conveyors for solid raw material, including the following:~~

~~(i) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.~~

~~(ii) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.~~

~~(u) Purging of gas lines and vessels that is related to 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.~~

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

~~(w) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.~~

~~(x) A laboratory as defined in 326 IAC 2-7-1(21)(D)~~

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

~~(z) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).~~

~~(aa) Brazing equipment, cutting torches, soldering equipment, and welding equipment related to manufacturing activities not resulting in emissions of HAPs.~~

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

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

~~D.13.1 Particulate [326 IAC 6-3-2]~~

~~(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission pound per hour limitation from the temper mill shall be calculated using the following equation:~~

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

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

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

~~$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour~~

~~D.13.2 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]~~

~~(a) Pursuant to 40 CFR 63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the gasoline dispensing facility as specified in 40 CFR 63, Subpart CCCCCC in accordance with schedule in 40 CFR 63 Subpart CCCCCC.~~

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

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

~~D.13.3 National Emission Standards for Hazardous Air Pollutants for Sources Category: Gasoline Dispensing Facilites [40 CFR Part 63, Subpart CCCCCC]~~

~~The Permittee shall comply with the following provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment C):~~

~~(1) 40 CFR 63.11110~~
~~(2) 40 CFR 63.11111 (a), (b), (e), (h), (i)~~
~~(3) 40 CFR 63.11112 (a), (d)~~
~~(4) 40 CFR 63.11113 (b)~~
~~(5) 40 CFR 63.11115~~
~~(6) 40 CFR 63.11116~~
~~(7) 40 CFR 63.11125 (d)~~
~~(8) 40 CFR 63.11130~~
~~(9) 40 CFR 63.11131~~
~~(10) 40 CFR 63.11132~~
~~(11) Table 3~~

SECTION D.13 FACILITY OPERATION CONDITIONS

Emission Unit Description:

Emergency Generators

(a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp).

Insignificant Activities

(b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower. [40 CFR 63, Subpart ZZZZ]

(1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw. [40 CFR 60, Subpart IIII]

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

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

D.13.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.6565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the above listed emissions units, as specified in 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR Part 63, Subpart ZZZZ.

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

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.13.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ] [326 IAC 20-82]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 (included as Attachment F to this permit), for the above listed emissions units, as specified as follows.

(1) 40 CFR 63.6585 (a), (c)
(2) 40 CFR 63.6590 (a)(1)(iii), (a)(2)(iii), (c)(1)
(3) 40 CFR 63.6595 (a)(1), (c)
(4) 40 CFR 63.6603 (a)
(5) 40 CFR 63.6604 (b)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625 (e)(3), (f), (h), (i)
(8) 40 CFR 63.6640 (a), (b), (e), (f)(1), (f)(2), f(4)
(9) 40 CFR 63.6645 (a)(5)
(10) 40 CFR 63.6650 (a), (h)
(11) 40 CFR 63.6655 (a), (d), (e)(2), (f)
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6675
(15) Table 2d to 40 CFR 63, Subpart ZZZZ (item 4)
(16) Table 6 to 40 CFR 63, Subpart ZZZZ (item 4)
(17) Table 7 to 40 CFR 63, Subpart ZZZZ (item 9)
(18) Table 8 to 40 CFR 63, Subpart ZZZZ

D.13.3 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, for the emergency diesel generator, identified as Melt Shop (Door 26), except as otherwise specified in 40 CFR 60, Subpart IIII.

D.13.4 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart IIII] [326 IAC 12]

Pursuant to 40 CFR 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, (included as Attachment G of this permit) for the emergency diesel generator, identified as Melt Shop (Door 26):

(1) 40 CFR 60.4200 (a)(2)(i), (a)(4)
(2) 40 CFR 60.4205 (b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207 (a), (b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209 (a)
(7) 40 CFR 60.4211 (a), (c), (f)
(8) 40 CFR 60.4218
(9) 40 CFR 60.4219
(10) Table 8

SECTION D.14 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.[326 IAC 6-2-4]

(1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

(The information describing the processes 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.14.1 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each natural gas-fired heating unit shall be limited to 0.6 pounds per MMBtu heat input.

SECTION D.15 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(c) 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. This facility includes the following:

(1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

(2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

(The information describing the processes 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.15.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

In order to render the requirements of 326 IAC 8-4-6 not applicable for the Gasoline Storage Tanks #2 and #3 (or T2 and T3), the Permittee shall comply with the following:

(a) The monthly gasoline throughput from the Gasoline Storage Tank #2 (or T2) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

(b) The monthly gasoline throughput from the Gasoline Storage Tank #3 (or T3) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities) not applicable.

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

D.15.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.13.2 - Volatile Organic Compounds (VOC), the Permittee shall maintain records of the monthly gasoline dispensed from Gasoline Storage Tanks #2 and #3 (or T2 and T3).

(b) Condition C.17 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.15.3 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.11130, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the above listed emissions units except as specified in 40 CFR Part 63, Subpart CCCCCC in accordance with the schedule in 40 CFR 63, Subpart CCCCCC.

D.15.4 Source Category: Gasoline Dispensing Facilities NESHAP [40 CFR 63, Subpart CCCCCC]

Pursuant to 40 CFR Part 63, Subpart CCCCCC, the Permittee shall comply with the provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment H of this permit), for the above listed emissions units, as specified below:

(1) 40 CFR 63.11111 (a), (b), (e), (h), (i)
(2) 40 CFR 63.11112 (a), (d)
(3) 40 CFR 63.11113 (b)
(4) 40 CFR 63.11115
(5) 40 CFR 63.11116
(6) 40 CFR 63.11125 (d)
(7) 40 CFR 63.11130
(8) 40 CFR 63.11132
(9) Table 3

SECTION D.16 FACILITY OPERATION CONDITIONS

Emission Unit Description: Insignificant Activities

(d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]

(1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.

(2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

(The information describing the processes 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.16.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission pound per hour limitation from the insignificant activities listed in this section shall be calculated using the following equation:

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

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

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

$$E = 55.0\ P^{0.11} - 40$$

where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

***

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: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-~~8068~~**30061**-00043

This form consists of 2 pages

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) **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 within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
~~100 N. Senate Avenue~~
~~Indianapolis, IN 46204-2251~~
~~Phone: 317-233-0178~~
~~Fax: 317-233-6865~~

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-~~8068~~**30061**-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: single HAP emission
Limits: **Less than** 10 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

***

Fugitive Dust Control Plan

***

Section 3 – Unpaved Roads

The following dust control measures shall be performed on the unpaved maintenance roads outside of the slag processing area ~~shall be treated to control at least 90 percent instantaneous control based on a PM10 mass~~ **such that the** emission ~~basis.~~ **reduction requirements in the permit are met.** All unpaved roads shall be treated with ~~a commercially produced~~**an EPA-approved** dust suppressant ~~specifically manufactured for that purpose, and shall be approved in writing, by the Indiana Department of Environmental Management for the use in the State of Indiana as a chemical dust suppressant.~~ **in order to meet compliance with the associated emission reduction requirements.** As an alternative, Steel Dynamics, Inc. - Flat Roll Division may pave previously unpaved road sections and apply paved road cleaning measures to these newly pave roads at frequencies similar to existing paved roads in the immediate area.

~~All roads at the slag handling processing facility shall be unpaved and treated by plant personnel with an asphaltic emulsion at a rate of at least 0.16 gallons per square yard, once per month based on average daily 70-80 vehicles of travel.~~

~~Asphalt emulsion products (AE-30) or equivalent shall be applied on a frequency of once per month, April through October, unless conditions require frequency to increase or as required by IDEM or USEPA, to insure fugitive dust control. Snow cover, inclement weather and freezing/thawing shall preclude application November through March.~~

~~Equivalent suppressant shall require written approval from IDEM shall be applied at a rate equivalent to 0.16 gallons per square yard. The initial treatment and subsequent treatments shall immediately follow the first application rates and frequencies shall be sufficient to provide at least 85 percent instantaneous control efficiency.~~

~~The above dosage may be too high to be absorbed by the road in one step. In this case, application may be done in two or more stages using lower concentrations but with corresponding increase in treatment frequency.~~

Treating of unpaved road segments may be delayed by one day when:

(a) 0.1 or more inches of rain have accumulated during the 24-hour period prior to the scheduled treatment.

(b) Road segments are saturated with water such that chemical dust suppressants cannot be accepted by the surface.

(c) Road segments are frozen or covered by ice, snow or standing water.

(d) The road segment or area is closed or abandoned. Abandoned roads will be barricaded.

(e) It is raining ~~at~~**on** the ~~time~~**day** of the scheduled treatment.

(f) The ambient air temperature is below or forecasted to be below 32 F.

Section 4 – Open Aggregate Piles

Open aggregate piles consist of slag in various stages of processing. To maintain product quality and chemical stability, watering the stockpiles shall be the primary means of dust control. Water must be limited as to keep the moisture content of the product within standards.

Wind erosion – When visible emissions exceed 5 percent opacity **over a 3-minute average** from any piles, the affected piles shall be sprayed as required by water to eliminate wind erosion. Water added to the product during processing provides added procedures specified in Section 7.

***

Section 6 – Material Spill control

Incidents of material spillage leading to visible fugitive dust shall be ~~investigated and~~ properly cleaned up.

***

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 December 28, 2012. Additional information was received on October 14, 2011, June 21, 2013, September 6, 2013, and October 18, 2013.

Conclusion

The operation of this stationary steel minimill shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T033-30061-00043.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Kristen Willoughby 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) 233-3031 or toll free at 1-800-451-6027 extension (3-3031).

(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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby
Date: January 31, 2011

Potential to Emit (ton/yr)											
Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	CO_2e	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	103294.86	298407.38	>100	>100	>100	>100	>100	NA	565.90	-	0.19
Ladle Metallurgical Stations	2402.74	2402.74	245.28	61.32	42.05	5.78	43.80	NA	-	-	-
Combustion	4.83	19.30	19.30	1.52	370.99	13.97	213.32	306,556	1.27E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	600	-	-	-
Storage Silo 5c	45.05	45.05	45.05	-	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	659.34	659.34	659.34	-	-	-	-	-	-	-	-
Reversing Mill	3153.60	3153.60	3153.60	-	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	39,395	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	109561.40	304690.10	4125.25	63.22	457.28	3917.58	287.62	346,551	565.90	0.00	0.44
Steel Dynamics, Inc. - IDD	14,592.16	17,067.92	17,066.88	422.15	553.37	1,830.23	670.57	36,744	0.66	0.14	-
Total	124,153.56	321,758.02	21,192.13	485.37	1,010.65	5,747.81	958.19	383,295	566.56	0.14	0.44

Potential to Emit After Issuance (ton/yr)											
Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	CO_2e	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	155.05	447.64	>100	350.40	893.52	227.76	3,504.00	NA	0.83	-	0.10
Ladle Metallurgical Stations	24.05	24.05	245.28		43.80	14.37	175.20	NA	-	-	-
Combustion	4.66	18.63	19.30	1.47	363.89	13.49	205.96	295,981	1.23E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	600	-	-	-
Storage Silo 5c	0.45	0.45	45.05	-	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	6.59	6.59	659.34	-	-	-	-	-	-	-	-
Reversing Mill	31.54	31.54	3153.60	-	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	38.96	0.27	39,395	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	223.32	531.58	4,125.25	352.25	1,345.45	296.56	3,888.52	335,977	0.84	0.00	0.35
Steel Dynamics, Inc. - IDD	>100	>100	>100	>100	>100	>100	>100	36,744	0.29	0.04	-
Total	>100	>100	>100	>100	>100	>100	>100	>100,000	1.13	0.04	0.35

The "Potential to Emit After Issuance Table" only includes limits if they are federally enforcable in the permit. Otherwise it inlcudes uncontrolled potential emissions.

Total Potential HAPs	(tons/yr)
Iron Dynamics Division	93.54
Flat Roll Division	1470.67
Steel Dynamics, Inc. Total	1564.21

Total Limited HAPs	(tons/yr)
Iron Dynamics Division	6.85
Flat Roll Division	16.81
Steel Dynamics, Inc. Total	23.66

Single Potential HAP - Glycol Ethers	(tons/yr)
Iron Dynamics Division	-
Flat Roll Division	6.36
Steel Dynamics, Inc. Total	6.36

NA - This data was not needed for rule applicability determination.

The above tables do not reflect the total source wide emissions. They are only the sum of the units that were calculated for CAM and source wide HAP applicability determinations.

TSD Appendix A: Emission Calculations
Limited HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00076
Reviewer: Kristen Willoughby
Date: January 31, 2011

	Emission Source							
Pollutant	**EAF (ton/yr)**	**Combustion (ton/yr)**	**Emergency Generators (ton/yr)**	**Cold Mill Operations - Pickle Line (ton/yr)**	**Surface Coating (ton/yr)**	**EAF Dust Silo 5c (ton/yr)**	****Fuel Dispensing Operation (ton/yr)**	**Total Facility (ton/yr)**
Acetaldehyde	---	---	9.14E-05	---	---	---	---	9.1E-05
Acrolein	---	---	2.86E-05	---	---	---	---	2.9E-05
Benzene	---	5.15E-03	2.81E-03	---	6.85E-04	---	---	8.6E-03
Dichlorobenzene	---	2.94E-03	---	---	3.92E-04	---	---	3.3E-03
Ethyl Benzene	---	---	---	---	0.48	---	---	4.8E-01
Formaldehyde	---	0.18	2.86E-04	---	0.03	---	---	2.1E-01
Glycol Ethers*	---	---	---	---	6.36	---	---	6.4E+00
Hexane	---	---	---	---	---	---	---	0.0E+00
Isophorone	---	---	---	---	0.49	---	---	4.9E-01
Naphthalene	---	1.50E-03	---	---	0.92	---	---	9.2E-01
Toluene	---	8.34E-03	1.02E-03	---	1.11E-03	---	---	1.0E-02
1,2,4-Trimethylbenzene	---	---	---	---	4.56	---	---	4.6E+00
Xylene	---	---	7.00E-04	---	1.88	---	---	1.9E+00
Arsenic	1.09E-02	---	---	---	---	2.74E-04	---	1.1E-02
Beryllium	4.91E-04	---	---	---	---	1.24E-05	---	5.0E-04
Cadmium	8.76E-03	2.70E-03	---	---	3.59E-04	2.21E-04	---	1.2E-02
Chromium	6.13E-03	3.43E-03	---	---	4.57E-04	1.55E-04	---	1.0E-02
Hydrochloric Acid	---	---	---	1.40	---	---	---	1.4E+00
Manganese	5.26E-01	9.32E-04	---	---	1.24E-04	1.33E-02	---	5.4E-01
Nickel	9.64E-03	5.15E-03	---	---	6.85E-04	2.43E-04	---	1.6E-02
PAH/POM	---	---	7.69E-04	---	---	---	---	7.7E-04
Totals (ton/yr)	0.56	0.21	0.01	1.40	14.60	0.01	0.01	**16.81**

*Largest individual HAP.
**Speciated HAP emission are not available for this operation only total.
***The total HAP emissions from the surface coating is based on the permit limit.

TSD Appendix A: Emission Calculations
Unlimited HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00076
Reviewer: Kristen Willoughby
Date: January 31, 2011

	Emission Source							
Pollutant	**EAF (ton/yr)**	**Combustion (ton/yr)**	**Insignificant Activity Combustion (ton/yr)**	****Cold Mill Operations - Pickle Line (ton/yr)**	**Surface Coating (ton/yr)**	**EAF Dust Silo 5c (ton/yr)**	*****Fuel Dispensing Operation (ton/yr)**	**Total Facility (ton/yr)**
Acetaldehyde	---	---	9.14E-05	---	---	---	---	9.1E-05
Acrolein	---	---	2.86E-05	---	---	---	---	2.9E-05
Benzene	---	5.33E-03	2.81E-03	---	6.85E-04	---	---	8.8E-03
Dichlorobenzene	---	3.05E-03	---	---	3.92E-04	---	---	3.4E-03
Ethyl Benzene	---	---	---	---	48.18	---	---	4.8E+01
Formaldehyde	---	0.19	2.86E-04	---	0.58	---	---	7.7E-01
Glycol Ethers*	---	---	---	---	635.91	---	---	6.4E+02
Isophorone	---	---	---	---	48.54	---	---	4.9E+01
Naphthalene	---	1.55E-03	---	---	91.87	---	---	9.2E+01
Toluene	---	8.63E-03	1.02E-03	---	1.11E-03	---	---	1.1E-02
1,2,4-Trimethylbenzene	---	---	---	---	455.77	---	---	4.6E+02
Xylene	---	---	7.00E-04	---	187.60	---	---	1.9E+02
Arsenic	1.09E-02	---	---	---	---	2.74E-04	---	1.1E-02
Beryllium	4.91E-04	---	---	---	---	1.24E-05	---	5.0E-04
Cadmium	8.76E-03	2.79E-03	---	---	3.59E-04	2.21E-04	---	1.2E-02
Chromium	6.13E-03	3.56E-03	---	---	4.57E-04	1.55E-04	---	1.0E-02
Hydrochloric Acid	---	---	---	1.40	---	---	---	1.4E+00
Manganese	5.26E-01	9.65E-04	---	---	1.24E-04	1.33E-02	---	5.4E-01
Nickel	9.64E-03	5.33E-03	---	---	6.85E-04	2.43E-04	---	1.6E-02
PAH/POM	---	---	7.69E-04	---	---	---	---	7.7E-04
Totals (ton/yr)	0.56	0.22	0.01	1.40	1468.45	0.01	0.01	**1470.67**

*Largest individual HAP.
**These are limited values. There are no uncontrolled emission calculations for this operation.
***Speciated HAP emission are not avaliable for this operaiton only total.

Appendix A: Emission Calculations
Electric Arc Furnaces (EAF)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

			Pollutant									
			SO2	NO_x	VOC	CO	Pb	HG	Pb	HG	Pb	HG
Limited Emission Factor (lb/ton)			0.2	0.51	0.13	2.0	0.323	1.10E-04	Controlled Emissions	Controlled Emissions	Limited Emissions	Limited Emissions
Unit	Throughput (tons/hr)	Control Efficiency (%)	Potential Emission (tons/yr)						(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
EAF #1 South	200	99.85%	175.2	446.76	113.88	1,752.0	282.95	0.10	0.42	0.10	0.83	0.10
EAF #2 North	200	99.85%	175.2	446.76	113.88	1,752.0	282.95	0.10	0.42			
		Total	**350.4**	**893.52**	**227.76**	**3,504.0**	**565.90**	**0.19**	**0.85**	**0.10**	**0.83**	**0.10**

Methodology:

Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

Unit	Flow Rate (dscfm)	PM outlet Grain loading (gr/dscf)	PM10 outlet Grain loading (gr/dscf)	Control Efficiency (%)	Uncontrolled PM (ton/yr)	Uncontrolled PM10 (ton/yr)	Controlled PM (ton/yr)	Controlled PM10 (ton/yr)	Limited PM (ton/yr)	Limited PM10 (ton/yr)
EAF #1 South	1,300,000	0.0018	0.0052	99.85%	58,566.86	169,193.14	9.11	41.61	88.038	253.60
EAF #2 North	992,821	0.0018	0.0052	99.85%	44,728.00	129,214.23	8.76	30.53	67.014	194.03
				Total	**103,294.86**	**298,407.38**	**17.87**	**72.14**	**155.05**	**447.64**

Methodology:

Controlled Emissions (ton/yr) are based on test data from 7/27/2010

Uncontrolled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb / (1- Control Efficiency (%))

			Pollutant					
			Arsenic	Beryllium	Cadmium	Chromium	Magnanese	Nickel
Limited Emission Factor (lb/ton)			6.20E-06	2.80E-07	5.00E-06	3.50E-06	3.00E-04	5.50E-06
Unit	Throughput (tons/hr)	Control Efficiency (%)	Potential Emission (tons/yr)					
EAF #1 South	200	99.85%	5.43E-03	2.45E-04	4.38E-03	3.07E-03	0.26	4.82E-03
EAF #2 North	200	99.85%	5.43E-03	2.45E-04	4.38E-03	3.07E-03	0.26	4.82E-03
		Total	**0.01**	**4.91E-04**	**0.01**	**0.01**	**0.53**	**0.01**

			Pollutant					
			Arsenic	Beryllium	Cadmium	Chromium	Magnanese	Nickel
Limited Emission Factor (lb/ton)			6.20E-06	2.80E-07	5.00E-06	3.50E-06	3.00E-04	5.50E-06
Unit	Throughput (tons/hr)	Control Efficiency (%)	Controlled Potential Emission (tons/yr)					
EAF #1 South	200	99.85%	8.15E-06	3.68E-07	6.57E-06	4.60E-06	3.94E-04	7.23E-06
EAF #2 North	200	99.85%	8.15E-06	3.68E-07	6.57E-06	4.60E-06	3.94E-04	7.23E-06
		Total	**1.63E-05**	**7.36E-07**	**1.31E-05**	**9.20E-06**	**7.88E-04**	**1.45E-05**

Methodology:

Potential Emissions (ton/yr) = AP-42 Table 12.5.1-9 Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: There is an AP-42 emission factor for Fluoride which was not included here because this source does not use Fluorspar which is the source of the Fluoride emissions at other mini-mills.

Appendix A: Emission Calculations
Ladle Metallurgical Stations (LMS)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Stack Test Data - Controlled Emissions		
Year	Pollutant	
	PM/PM10	
	(lb/hr)	(ton/yr)
2008		
Run 1	1.24	5.45
Run 2	0.23	1.02
Run 3	0.22	0.98
Average of 3 runs	0.57	**2.48**

Unit	Flow Rate	PM/PM10 outlet Grain loading	Control Efficiency	Controlled PM/PM10	Uncontrolled PM/PM10	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Ladle Metallurgical Stations (LMS)	200,000	0.0032	99%	24.03	2,402.74	24.05
			Total	**24.03**	**2,402.74**	**24.05**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Steel Dynamics, Inc. - Flat Roll Division

Butler, IN

Ladle Metallurgical Stations (LMS) Continued

T033-30061-00043

		Pollutant				
		PM2.5	SO2	NO_x	VOC	CO
Emission Factor (lb/ton)		0.14	0.035	0.024	0.0033	0.025
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (South)	200	122.64	30.66	21.02	2.89	21.90
Ladle Metallurgical Station (North)	200	122.64	30.66	21.02	2.89	21.90
	Total	**245.28**	**61.32**	**42.05**	**5.78**	**43.80**

Methodology:

Emission Factors from AP-42 Chapter 12.5.1.

Potential Emissions (ton/yr) = Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

		Pollutant				
		PM2.5	SO2	NO_x	VOC	CO
Limited Emission Factor (lb/ton)		NA	**	0.025	0.0082	0.100
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (Total)	400	--	**	43.80	14.37	175.20
	Total	**--**	******	**43.80**	**14.37**	**175.20**

**Limited SO2 emissions are combined with the EAF limited emissions.

Methodology:

Limited Emission Factors from permit.

Limited Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Appendix A: Emission Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

*NO_X Manufacturer Guarantee Emission Factors	*NOx PSD Permit Limits		
	(lb/MMBtu)		(lb/MMCF)
	0.17	0.1	200
(lb/MMCF)	Tunnel Furnace #1	Tunnel Furnace # 2	Galv 1 - Preheat & Radiant
81			Galv 2- Preheat & Radiant
Pickle Line Boilers			Annealing Furnaces

			Pollutant						
			PM**	PM10**	PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	7.6	0.6	100.0	5.5	84.0
							**see below		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)						
Tunnel Furnace No. 1	117.9	1012.553	0.962	3.848	3.848	0.304	87.788	2.785	42.527
Tunnel Furnace No. 2	92	790.118	0.751	3.002	3.002	0.237	40.296	2.173	33.185
Ladle Preheaters (5)	50	429.412	0.408	1.632	1.632	0.129	21.471	1.181	18.035
Ladle Dryout (2)	20	171.765	0.163	0.653	0.653	0.052	8.588	0.472	7.214
Tundish Dryers (3)	4.5	38.647	0.037	0.147	0.147	0.012	1.932	0.106	1.623
Tundish Preheaters (2)	18.8	161.459	0.153	0.614	0.614	0.048	8.073	0.444	6.781
Hot Band Galvanizing Line (Galv 1)*	54.5	468.059	0.445	1.779	1.779	0.140	46.806	1.287	19.658
Hot Band Galvanizing Line (Galv 1)	31.2	267.953	0.255	1.018	1.018	0.080	13.398	0.737	11.254
Cold Rolled Galvanizing Line (Galv 2)*	77.3	663.871	0.631	2.523	2.523	0.199	66.387	1.826	27.883
Annealing Furnaces (16)	64	549.647	0.522	2.089	2.089	0.165	54.965	1.512	23.085
Pickle Line Boiler No. 1*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Pickle Line Boiler No. 2*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Pickle Line Boiler No. 3*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482	7.358
Total Unlimited			4.83	19.30	19.30	1.52	370.99	13.97	213.32
Total Limited***			4.66	18.63	18.63	1.47	363.89	13.49	205.96

**PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
*** Total Limited Emissions based on PSD limit that only 2 of the 3 Pickle Line Boilers can be in operation at a time.

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Natural Gas Combustion (Less than 100 MMBtu/hr) Continued

T033-30061-00043

			HAPs - Organics				
			Benzene	Dichlorobenzene	Formaldehyde	Naphthalene	Toluene
	Emission Factor in lb/MMCF		2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
Tunnel Furnace (heating zone)	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Tunnel Furnace (holding zone)	25.9	222.435	2.3E-04	1.3E-04	8.3E-03	6.8E-05	3.8E-04
Tunnel Furnace	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Ladle Preheaters (5)	50	429.412	4.5E-04	2.6E-04	1.6E-02	1.3E-04	7.3E-04
Ladle Dryout (2)	20	171.765	1.8E-04	1.0E-04	6.4E-03	5.2E-05	2.9E-04
Tundish Dryers (3)	4.5	38.647	4.1E-05	2.3E-05	1.4E-03	1.2E-05	6.6E-05
Tundish Preheaters (2)	18.8	161.459	1.7E-04	9.7E-05	6.1E-03	4.9E-05	2.7E-04
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	7.7E-04	4.4E-04	2.8E-02	2.2E-04	1.3E-03
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	7.0E-04	4.0E-04	2.5E-02	2.0E-04	1.1E-03
Annealing Furnaces (16)	64	549.647	5.8E-04	3.3E-04	2.1E-02	1.7E-04	9.3E-04
Pickle Line Boiler No. 1	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 2	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 3	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Total Unlimited			5.3E-03	3.0E-03	1.9E-01	1.5E-03	8.6E-03
Total Limited			5.1E-03	2.9E-03	1.8E-01	1.5E-03	8.3E-03

			HAPs - Metals					
			Lead*	Cadmium	Chromium	Manganese	Nickel	**Total HAPs (Organics+Metals)**
	Emission Factor in lb/MMCF		5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Tunnel Furnace (heating zone)	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Tunnel Furnace (holding zone)	25.9	222.435	5.6E-05	1.2E-04	1.6E-04	4.2E-05	2.3E-04	9.7E-03
Tunnel Furnace	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Ladle Preheaters (5)	50	429.412	1.1E-04	2.4E-04	3.0E-04	8.2E-05	4.5E-04	1.9E-02
Ladle Dryout (2)	20	171.765	4.3E-05	9.4E-05	1.2E-04	3.3E-05	1.8E-04	7.5E-03
Tundish Dryers (3)	4.5	38.647	9.7E-06	2.1E-05	2.7E-05	7.3E-06	4.1E-05	1.7E-03
Tundish Preheaters (2)	18.8	161.459	4.0E-05	8.9E-05	1.1E-04	3.1E-05	1.7E-04	7.0E-03
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	1.8E-04	4.0E-04	5.2E-04	1.4E-04	7.7E-04	3.2E-02
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	1.7E-04	3.7E-04	4.6E-04	1.3E-04	7.0E-04	2.9E-02
Annealing Furnaces (16)	64	549.647	1.4E-04	3.0E-04	3.8E-04	1.0E-04	5.8E-04	2.4E-02
Pickle Line Boiler No. 1	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 2	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 3	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Total Unlimited			1.3E-03	2.8E-03	3.6E-03	9.7E-04	5.3E-03	2.2E-01
Total Limited			1.2E-03	2.7E-03	3.4E-03	9.3E-04	5.1E-03	2.1E-01

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.
Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Natural Gas Combustion (Less than 100 MMBtu/hr) Continued

T033-30061-00043

			Greenhouse Gas				
			CO2	CH4	N2O	GHG	CO2e
Emission Factor in lb/MMcf			120000	2.3	2.2		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emission (tons/yr)			Summed PTE (tons/yr)	Total (tons/yr)
Tunnel Furnace (heating zone)	92	790.118	47,407.06	0.91	0.87	47,409	47,689
Tunnel Furnace (holding zone)	25.9	222.435	13,346.12	0.26	0.24	13,347	13,425
Tunnel Furnace	92	790.118	47,407.06	0.91	0.87	47,409	47,689
Ladle Preheaters (5)	50	429.412	25,764.71	0.49	0.47	25,766	25,918
Ladle Dryout (2)	20	171.765	10,305.88	0.20	0.19	10,306	10,367
Tundish Dryers (3)	4.5	38.647	2,318.82	0.04	0.04	2,319	2,333
Tundish Preheaters (2)	18.8	161.459	9,687.53	0.19	0.18	9,688	9,745
Hot Band Galvanizing Line (Galv 1)	85.7	736.012	44,160.71	0.85	0.81	44,162	44,423
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	39,832.24	0.76	0.73	39,834	40,069
Annealing Furnaces (16)	64	549.647	32,978.82	0.63	0.60	32,980	33,175
Pickle Line Boiler No. 1	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Pickle Line Boiler No. 2	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Pickle Line Boiler No. 3	20.4	175.200	10,512.00	0.20	0.19	10,512	10,574
Total Unlimited			304,744.94	5.84	5.59	304,756	306,556
Total Limited			294,232.94	5.64	5.39	294,244	295,981

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 (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emission Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Emergency Diesel Generators

Company Name: Steel Dynamics, Inc. - Iron Dynamics Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30062-00076
Plant ID: 033-00076
Reviewer: Kristen Willoughby

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (Kw/hr)	4250.00
Heat Input Capacity (MMBtu/hr)	14.5
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	7,251
Sulfur Content (S) of Fuel (% by weight)	0.050

750	Kw/hr	CM Watertreat
1500	Kw/hr	Main Watertreat (East)
1500	Kw/hr	Main Watertreat (West)
500	Kw/hr	Melt Shop (Door 26)
4250	Kw/hr	Total

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.10	0.0573	0.0556	0.051 *(1.01S)*	3.2 **see below	0.09	0.85
Potential Emission in tons/yr	0.36	0.21	0.20	0.18	11.60	0.33	3.08

*PM emission factor is from AP-42 Section 3.4, Table 3.4-1. The emission factors for PM10 and PM2.5 are from AP-42 Section 3.4, Table 3.4-2. The PM10 emission factor is the sum of filterable PM10 and condensable particulate. The PM2.5 emission factor is the sum of filterable particulate less than 3 um and condensable particulate.
**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Potential Emission in tons/yr	2.81E-03	1.02E-03	7.00E-04	2.86E-04	9.14E-05	2.86E-05	7.69E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr)	**5.71E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu	1.65E+02	8.10E-03	1.32E-03
Potential Emission in tons/yr	5.98E+02	2.94E-02	4.80E-03

Summed Potential Emissions in tons/yr	**5.98E+02**
CO2e Total in tons/yr	**6.00E+02**

Methodology
1 Kw-hr = 0.003412142 MMBtu/hr
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emission Calculations
Coll Mill Operations - Pickling Line

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

$$Q_{std} = \frac{Q_a P_s (17.64)(1-B_{wo})}{T_s + 460}$$

Where:
Q_{std} = volumetric flow rate at dry, standard conditions
Q_a = Absolute stack gas pressure (29.12 in Hg)
P_s = Stack gas moisture, % (12)
B_{wo} = Average absolute stack gas temperature (120°F)
17.64 = conversion factor (530°R / 30.04 in Hg)

$$Q_{std} = \frac{(17{,}630\ ft^3/min)(29.12)(17.64)(1-0.09)}{(113 + 460)} = 14{,}382.32 \text{ dscfm}$$

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
Pickling Line	14,382	0.01	99%	5.40	539.95
Pickling Line Scale Breaker	10,600	0.003	99%	1.19	119.39
Total				**6.59**	**659.34**

HCL: From vendor, the emission rate is 0.04 g/sec. This is equivalent to 0.32 lb/hr and 1.4 tpy. Stack tests have shown compliance with these guarantees.

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Appendix A: Emission Calculations
Reversing Mill

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Reversing Mill	84,000	0.01	99%	31.54	3,153.60	31.54
			Total	**31.54**	**3,153.60**	**31.54**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations
VOC
From Surface Coating Operations

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

2-side, 2-coat coil coating line
Potential to Emit before Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	270.00	6480.03	1182.61
Poly-White	739922	3.55	299.85	7196.50	1313.36
Poly-Color	369961	3.63	153.31	3679.34	671.48
SMP-White	221977	3.89	98.57	2365.73	431.75
SMP-Color	73992	3.82	32.27	774.38	141.32
Kynar-White	44395	3.99	20.22	485.30	88.57
Kynar-Color	29597	4.39	14.83	355.97	64.97

Potential to Emit VOC emissions before control **3894.05** **tons per year**

Control efficiency of the thermal oxidizer = 99%
Potential to Emit after Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	2.70	64.80	11.83
Poly-White	739922	3.55	3.00	71.97	13.13
Poly-Color	369961	3.63	1.53	36.79	6.71
SMP-White	221977	3.89	0.99	23.66	4.32
SMP-Color	73992	3.82	0.32	7.74	1.41
Kynar-White	44395	3.99	0.20	4.85	0.89
Kynar-Color	29597	4.39	0.15	3.56	0.65

Potential to Emit VOC emissions after control **38.94** **tons per year**

Pounds of VOC per gallon of Solids = Pounds of VOC per Gallon coating (lb/gal)/[1-(Pounds of VOC per Gallon coating (lb/gal)/7.36 (density of VOC)]
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations
HAPs
From Surface Coating Operations

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Part 70 Operating Permit Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby

Material		Density (Lb/Gal)	Gallons of Material (gal/year)	Weight % Xylene	Weight % 2,4-Trimethylbenze	Weight % Ethylbenzene	Weight % Naphthalene	Weight % Isophorone	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	1,2,4-Trimethylbenzene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Isophorone Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	
Primer	45Y54	11.44	637,523	4.20%	3.40%	1.00%	1.20%	0.00%	5.70%	0.00%	153.16	123.99	36.47	43.76	0.00	207.86	0.00	
Finishing	Poly-White	11.51	739,922	0.00%	6.29%	0.00%	0.00%	0.00%	5.44%	0.00%	0.00	267.84	0.00	0.00	0.00	231.65	0.00	
Finishing	Poly-Color	9.35	369,961	0.00%	0.00%	0.30%	2.20%	0.00%	0.00%	0.00%	0.00	0.00	5.19	38.05	0.00	0.00	0.00	
Finishing	SMP-White	10.42	221,977	1.03%	4.74%	0.14%	0.00%	0.00%	13.51%	0.00%	11.91	54.82	1.62	0.00	0.00	156.24	0.00	
Finishing	SMP-Color	9.48	73,992	1.10%	2.60%	0.30%	2.00%	0.00%	1.90%	0.00%	3.86	9.12	1.05	7.01	0.00	6.66	0.00	
Finishing	Kynar-White	11.51	44,395	6.44%	0.00%	1.51%	0.00%	19.00%	4.50%	0.00%	16.45	0.00	3.86	0.00	48.54	11.50	0.00	
Finishing	Kynar-Color	9.35	29,597	1.60%	0.00%	0.00%	2.20%	0.00%	15.90%	0.40%	2.21	0.00	0.00	3.04	0.00	22.00	0.55	
																		Total HAPs
										Total Potential Emissions	**187.60**	**455.77**	**48.18**	**91.87**	**48.54**	**635.91**	**0.55**	**1468.42**
										Controlled Emissions	**1.88**	**4.56**	**0.48**	**0.92**	**0.49**	**6.36**	**0.01**	**14.68**
										Limited Emissions								**0.00**

METHODOLOGY
Control Efficiency = 99% per SSM No. 033-15836-00043
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Two curing ovens with a combined 16 MMBtu/hr and one 60 MMBtu/hr Thermal Oxidizer

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Part 70 Operating Permit Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
76.0	652.7

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.6	2.5	2.5	0.2	32.6	1.8	27.4
Controlled Emission in tons/yr	0.6	2.5	2.5	0.2	32.6	0.02	0.27
(Control Efficiency)						(99%)	(99%)

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Curing ovens and thermal oxidizer are controlled for VOC and CO.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Naphthalene	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
Potential Emission in tons/yr	6.853E-04	3.916E-04	2.448E-02	1.991E-04	1.110E-03

	HAPs - Metals				
	Lead*	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.632E-04	3.590E-04	4.569E-04	1.240E-04	6.853E-04

Total **0.03**

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.
Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Steel Dynamics, Inc. - Flat Roll Division
Butler, IN

Surface Coating Combustion Continued

T033-30061-00043

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	39,162	0.75	0.72
Summed Potential Emissions in tons/yr	39,164		
CO2e Total in tons/yr	39,395		

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 (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Summary	Pollutant							
Uncontrolled	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	39,395

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Summary	Pollutant							
Limited	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	38.96	0.27	39,395

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

HAPs	Uncontrolled	Controlled	Limited
	tpy	tpy	tpy
1,2,4-Trimethylbenzen	455.77	4.56	4.56
ethylbenzene	48.18	0.48	0.48
Xylene	187.60	1.88	1.88
Naphthalene	91.87	0.92	0.92
Glycol Ethers	635.91	6.36	6.36
Formaldehyde	0.58	0.03	0.03
Isophorone	48.54	0.49	0.49
Benzene	6.853E-04	6.85E-04	6.85E-04
Dichlorobenzene	3.916E-04	3.92E-04	3.92E-04
Toluene	1.110E-03	1.11E-03	1.11E-03
Lead	1.632E-04	1.63E-04	1.63E-04
Cadmium	3.590E-04	3.59E-04	3.59E-04
Chromium	4.569E-04	4.57E-04	4.57E-04
Manganese	1.240E-04	1.24E-04	1.24E-04
Nickel	6.853E-04	6.85E-04	6.85E-04
Total	**1468.45**	**14.71**	**14.60**

Appendix A: Emission Calculations
Storage Silos

Company Name: **Steel Dynamics, Inc. - Flat Roll Division**
Address City IN Zip: **4500 County Road 59, Butler, IN 46721**
Part 70 Operating Permit Renewal No.: **033-30061-00043**
Reviewer: **Kristen Willoughby**

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
EAF Dust Silo 5c	1,200	0.01	99%	0.45	45.05
			Total	**0.45**	**45.05**

Methodology:

Outlet grain loading based on BACT limit.

PM_{10} and $PM_{2.5}$ assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

HAP Emissions (tpy)				
Pollutant	**EF (HAP Fraction of Total PM)**	**EF (lb/ton)**	**Uncontrolled**	**Controlled**
Lead*	--	0.323	0.01	7.28E-05
Arsenic	6.08E-04	--	0.03	2.74E-04
Beryllium	2.75E-05	--	1.24E-03	1.24E-05
Cadmium	4.90E-04	--	0.02	2.21E-04
Chromium	3.43E-04	--	0.02	1.55E-04
Manganese	2.94E-02	--	1.33	1.33E-02
Mercury*	5.60E-03	--	0.25	2.52E-03
Nickel	5.39E-04	--	0.02	2.43E-04
			1.42	**0.01**

NA = not avaliable

Methodology

Uncontrolled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 Before Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 Before Control (tpy)

Controlled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 After Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 After Control (tpy)

EF (% of Total PM) = HAP Emission (tpy) / PM Emissions (tpy)

*Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

Appendix A: Emissions Calculations
Fuel Dispensing Operations
Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address: 4500 County Road 59, Butler, IN 46721
Part 70 Renewal No.: 033-30061-00043
Reviewer: Kristen Willoughby

1.0 Fuel Dispensing Operations PTE

> This worksheet documents potential VOC and HAP emissions from storage tanks and vehicle refueling associated with the gasoline dispensing operation at the Butler Facility.

1.1 Storage Tanks Uncontrolled PTE

> Potential VOC and HAP emissions are quantified using EPA's TANKS v4.0.9d program for calculating loading and standing losses from storage tanks.

EUID	Emission Unit Description	Volume (gal)	Max Annual Throughput (gal/yr)	TANKS v4.0.9d VOC Emissions (lb/yr)	TANKS v4.0.9d VOC Emissions (tpy)	TANKS v4.0.9d HAP Emissions (lb/yr)	TANKS v4.0.9d HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	2,000	50,000	986.50	0.49	12.04	0.01
T1	Diesel Storage Tank #1	2,000	33,333	0.74	3.70E-04	0.06	3.00E-05
T3	Gasoline Storage Tank #3	5,000	33,333	1,361.52	6.81E-01	0.10	5.00E-05
T4	Diesel Storage Tank #4	5,000	33,333	1.13	5.65E-04	0.10	5.00E-05

1.2 Vehicle Refueling Uncontrolled PTE

> Potential VOC emissions from vehicle refueling with gasoline are based on AP-42, Table 5.2-7 emission factors for evaporative emissions from gasoline service station operations.

> Potential VOC emissions from vehicle refueling with diesel are based on the AP-42, Table 5.2-1 saturation factor for calculating petroleum liquid loading losses (splash loading assumed) and the following equation from AP-42, Section 5.2:
Loading Loss (lb/Mgal) = 12.46 * Saturation Factor * True Vapor Pressure at 60°F (psia) * Vapor Molecular Weight (lb/lb-mole) / Bulk Liquid Temperature (°R)

> Diesel true vapor pressure at 60°F and vapor molecular weight per AP-42, Table 7.1-2.

> Bulk liquid temperature of diesel assumed. Temperature in °R calculated based on the following equation:
Bulk Liquid Temperature (°R) = Bulk Liquid Temperature (°F) + 460

> Annual HAP emissions for vehicle gasoline and diesel refueling estimated based on ratio of HAP to VOC emissions for Gasoline Tank #1 and Diesel Tank #1, respectively.

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	VOC Displacement Losses (lb/Mgal)	VOC Spillage Losses (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)	Basis
F2, F3	Gasoline Dispensing	83	11.00	0.70	0.49	5.95E-03	AP-42, Table 5.2-7, Vehicle Refueling Operations (Stage II)

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	Saturation Factor	True Vapor Pressure at 60°F (psia)	Vapor Molecular Weight (lb/lb-mole)	Bulk Liquid Temperature (°F)	Bulk Liquid Temperature (°R)	Loading Loss (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
F1, F4	Diesel Dispensing	67	1.45	0.0065	130	60	520	0.03	9.79E-04	7.93E-05

1.3 Project PTE Summary

> Total VOC and HAP emissions from the project are summarized below.

EUID	Emission Unit Description	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	0.49	0.01
T1	Diesel Storage Tank #1	3.70E-04	3.00E-05
T3	Diesel Storage Tank #3	6.81E-01	5.00E-05
T4	Diesel Storage Tank #4	5.65E-04	5.00E-05
F2, F3	Gasoline Dispensing	0.49	5.95E-03
F1, F4	Diesel Dispensing	9.79E-04	7.93E-05
	Total PTE (tpy):	1.66	0.01

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Barry Smith
Steel Dynamics, Inc. – Flat Roll Division
4500 CR 59
Butler, IN 46721

DATE: December 30, 2014

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

SUBJECT: Final Decision
Title V Operating Permit Renewal
033-30061-00043

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:
Glenn Pushis, VP/GM
David Dempsey, Trinity Consultants
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 6/13/2013

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

December 30, 2014

TO: Butler Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Steel Dynamics, Inc. – Flat Roll Division
Permit Number: 033-30061-00043

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 6/13/2013

Mail Code 61-53

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4		DeKalb County Commissioners 100 South Main Street Auburn IN 46706 *(Local Official)*									
5		Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 *(Affected Party)*									
6		Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 *(Affected Party)*									
7		Dekalb County Health Department 220 E 7th St #110 Auburn IN 46706 *(Health Department)*									
8		Butler Public Library 340 South Broadway Street Butler IN 46721-1308 *(Library)*									
9		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)*									
10		Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 *(Affected Party)*									
11		Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 *(Affected Party)*									
12		Butler City Council and Mayors Office 215 S. Broadway St. Butler IN 46721 *(Local Official)*									
13		Ms. Camille Sears 502 W Lomita Ave Ojai CA 93023 (Affected Party)									
14		Mr. David Dempsey Trinity Consultants 7330 Woodland Drive, Suite 225 Indianapolis IN 46278 *(Consultant)*									
15		Konrad M.L. Urberg Urberg Law Office, LLC 803 S Calhoun St, Suite 100 Fort Wayne IN 46802 *(Affected Party)*									

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2		DeKalb County Building Department 301 S Union St Auburn IN 46706 *(Local Official)*									
3		Jared Baker Urberg Law Offices, LLC 803 S Calhoun St Fort Wayne IN 46802 *(Affected Party)*									
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