INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: January 8, 2014

RE: BF Goodrich Tire Manufacturing / 003-32577-00008

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

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot 6/13/2013

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Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

BF Goodrich Tire Manufacturing
18906 Highway 24 East
Woodburn, Indiana 46797

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions

Operation Permit No.: T003-32577-00008	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 8, 2014 Expiration Date: January 8, 2019

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Attachment B: 40 CFR Part 60, Subpart BBB (3B) - New Source Performance Standard (NSPS) for Rubber Tire Manufactuing

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Attachment D: 40 CFR Part 63, Subpart DDDDD (5D) - National Emissions Standards for Hazardous Air Polluntants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary rubber tire manufacturing plant.

Source Address:	18906 Highway 24 East, Woodburn, Indiana 46797
General Source Phone Number:	(260) 493-8275
SIC Code:	3011 (Tires and Inner Tubes)
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major for Greenhouse gases Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

(a) One (1) carbon black unloading and transfer area, identified as EU-01, installed in 1961 and modified in 1996, with a maximum capacity of 18,916 pounds of filler per hour, using five (5) baghouses for particulate matter control, consisting of the following:

(1) One (1) baghouse for carbon black unloading, which is considered integral to the process, exhausting to stack 197; and

(2) Four (4) baghouses for carbon black transfer, which are considered integral to the process, exhausting to four (4) stacks: 356A, 356B, 356C, 356D, respectively.

(b) One (1) Banbury mixing area, identified as EU-02, constructed in 1961, modified in 1968, modified in 2007 to include the use of silica and silane binder, and approved for modification in 2013 to increase the use of silica and silane binder, with a total maximum capacity of 46,651 pounds of rubber, carbon black, silica, silane binder, and other chemicals per hour, and consisting of the following:

(1) One (1) mixing line, identified as #1 Banbury Mixing Line, consisting of the following:

(A) #1 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 210;

(B) #1 Banbury batchout, using no control, and exhausting to stack 216;

(C) #1 soap tank, using no control, and exhausting to stack 216;

(2) One (1) mixing line, identified as #2 Banbury Mixing Line, consisting of the following:

(A) #2 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 208;

(B) #2 milling line, using three (3) mills (#1, #4, and #5), using no control, and exhausting to stack 202;

(C) #2 Banbury batchout, using no control, and exhausting to stack 201;

(D) #2 soap tank, using no control, and exhausting to stack 201;

(3) One (1) mixing line, identified as #3 Banbury Mixing Line, consisting of the following:

(A) #3 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 200;

(B) #3 milling line, using three (3) mills (#1, #2, and #3), one (1) of which was constructed in 2007, using no control, and exhausting to stacks 286 and 414;

(C) #3 Banbury batchout, using no control, and exhausting to stack 203;

(D) #3 soap tank, using no control, and exhausting to stack 200;

Note 1: #1 Banbury Mixing Line and #3 Banbury Mixing Line typically operate in series.

Note 2: Particulate emissions are generated from the three (3) Banbury mixers and are controlled by three (3) baghouses.

(4) Cement room, using no control, and exhausting to stack 197;

(5) Pelletizer-dewater/incline conveyor, using no control, and exhausting to stack 211.

These units in the Banbury mixing area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

Note: When silane binder is added in the Banbury mixers, it results in VOC emissions both from the Banbury mixing area (EU-02) and the tire curing process (EU-05).

(c) Component preparation area, identified as EU-03, constructed prior to 1974, and consisting of the following processes:

(1) Milling operation, including one (1) stand-alone/recoupe mill installed in 2007, with a total maximum capacity of 49,080 pounds of rubber per hour, and using no control;

(2) Calendering operation, with a maximum capacity of 14,629 pounds of rubber per hour, using no control;

(3) Extruding operation, with a total maximum capacity of 36,762 pounds of rubber per hour, using no control, including the the following:
(A) Apex bead complexers (2), installed in 2008,

(B) One (1) Guilin tread end/sidewall extruder, constructed in 2010,
(C) Four (4) Apex bead extruders, constructed in 2010, and
(D) One (1) bead former, constructed in 2011

(4) Ink marking operation, with a maximum capacity of 46,964 pounds of rubber per hour, using no control.

The component preparation area consists of the following units:

Line/Machine	Emission unit	Stack ID #
#1 Tread Line	Cap extruder	324
#1 Tread Line	Cap extruder conveyor	325
#1 Tread Line	Mill #5-2	326
#2 Tread Line	Mill #8-3	327
#2 Tread Line	Tread line extruders	328
#2 Tread Line	Ink code marker	329
#3 Calender	Mill #11-4	330
#4 Roll Calender	Thread bar	173
#4 Roll Calender	Relax drums	174
#4 Roll Calender	Roof ventilator	186
#4 Roll Calender	Mill #10-4	254
#4 Roll Calender	Plastifier	255
Guilin tread line	Extruders	416
Guilin tread line	Mill	417
Guilin tread line	Cooling bath	418
WSW line	Four (4) mills/extruders/calenders	318
Recoupe line	Two (2) stand-alone mills	415

These units in the Component preparation area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(d) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and in 1997, with a maximum capacity of 604 treads per hour, exhausting to the one (1) of the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to the one (1) of the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to the one (1) of the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control; and

(4) Mud area, constructed in 1961, with a maximum capacity of 8,881,694 tires per year and 0.0027 pounds of solvent per tire, and exhausting to two (2) stacks: 9 and 11.

Note: This process is part of the extruding operation in the component preparation area.

These units in the Tread end cementing process are affected facilities under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(e) Tire curing process, identified as EU-05, constructed in 1961 and modified in 2004 and 2011, approved for modification in 2013 for increased throughput of silica and silane, consisting of two hundred ninety-four (204) curing presses, with a maximum individual capacity of 143.07 pounds of rubber per hour, using no control, and exhausting to thirty (30) stacks: 51 through 58, 60 through 66, 68, 69, 71, 73, 75, 77, 79, 80, and 82 through 88.

One hundred fifty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses to be constructed in 2014 through 2016, which were approved for construction in 2011.

These tire curing presses are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(f) Tire uniformity optimizer (TUO) module area, identified as EU-06, constructed in 1961 and modified in 2003, consisting of the following:

(1) White sidewall (WSW) grinding area, relocated in 2011, consisting of twelve (12) grinding units with a total maximum capacity of 35,223 pounds of rubber tires per hour and 6,661,270 tires per year, using four (4) centrifugal separators as control, exhausting to (4) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
Three (3) WSW Grinders #1, #2, & #3	Centrifugal separator	278
Three (3) WSW Grinders #4, #5, & #6	Centrifugal separator	279
Three (3) WSW Grinders #7, #8, & #9	Centrifugal separator	280
Three (3) WSW Grinders #10, #11, & #12	Centrifugal separator	281

(2) RIS grinding area, consisting of seventeen (17) grinding units, of which ten (10) units were constructed in 1961 and modified in 2003, seven (7) units were constructed in 2007, and one (1) unit was constructed in 2011, with a total maximum capacity of 7,045 pounds of rubber tires per hour and 1,332,254 tires per year, using seventeen (17) centrifugal separators as control, and exhausting to seventeen (17) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
One (1) RIS Grinder #1	Centrifugal separator	258
One (1) RIS Grinder #2	Centrifugal separator	277
One (1) RIS Grinder #3	Centrifugal separator	282
One (1) RIS Grinder #4	Centrifugal separator	275
One (1) RIS Grinder #5	Centrifugal separator	259
One (1) RIS Grinder #6	Centrifugal separator	265
One (1) RIS Grinder #7	Centrifugal separator	266
One (1) RIS Grinder #8	Centrifugal separator	267
One (1) RIS Grinder #9	Centrifugal separator	268
One (1) RIS Grinder #10	Centrifugal separator	269
One (1) RIS Grinder #11	Centrifugal separator	270
One (1) RIS Grinder #12	Centrifugal separator	271
One (1) RIS Grinder #13	Centrifugal separator	272
One (1) RIS Grinder #14	Centrifugal separator	260
One (1) RIS Grinder #15	Centrifugal separator	261
One (1) RIS Grinder #16	Centrifugal separator	276
One (1) RIS Grinder #24	Centrifugal separator	274
One (1) RIS Grinder #25	Centrifugal separator	273

The units in the TUO module are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(g) One (1) green tire spray operation, installed in 1961, consisting of four (4) spray machines equipped with air atomizing spray heads, identified as GTS #1, #2, #3, and #5, with a maximum capacity of 8,881,694 tires per year and 0.088 gallon per tire, using baffle filters for particulate matter control, and exhausting to four (4) stacks 262, 263, 264, and 280;

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(h) One (1) white sidewall (WSW) protectant spray operation, installed in 1961, using three (3) spray heads each with two (2) nozzles, one (1) of which is high pressure, with a maximum capacity of 6,661,270 tires per year and 0.001 gallon per tire, using four (4) centrifugal separators as control, and exhausting to four (4) stacks 278, 279, 280, and 281;

Note: This operation exhausts to the same centrifugal separators and stacks as the WSW grinding operation (EU-06).

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(i) Four (4) boilers consisting of the following, identified as EU-07:

(1) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #1, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(2) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #2, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(3) One (1) natural gas fired boiler, identified as Boiler #3, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 114;

(4) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #5, constructed in 1974, with a maximum heat input capacity of 130 million Btu per thermal, using no control, and exhausting to stack 257.

These units are affected facilities under 40 CFR Part 63, Subpart DDDDD (5D).

Note: The three (3) tread end cementers (EU-04) vents to these boilers for VOC control.

(j) One (1) tire building area, constructed in 1961, with a maximum capacity of 47,290 pounds of tires per hour, using no control, exhausting at stack 279.

This area is an affected facility under 40 CFR Part 63, Subpart XXXX (4X).

Note: Emissions from the tire building area are negligible.

A.3 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) The following combustion related activities:

(1) One (1) natural gas-fired hot water heating system, installed in 2004, with a maximum input capacity of 0.18 million Btu per hour;

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(2) One (1) fire system water tank heating boiler, installed in 2003, using No. 2 fuel oil, with a maximum throughput of 1.54 MMBtu/hr; and

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(3) Two (2) diesel fire pumps, identified as #1 and #2, installed in 1973, using No. 2 fuel oil, each with a maximum capacity of 275 hp;

These units are affected facilities under 40 CFR Part 63, Subpart ZZZZ (4Z).

(4) Combustion source flame safety purging on startup;

(b) The following fuel dispensing activities:

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

(2) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing 35,000 gallons per day or less;

(c) The following VOC and HAP storage containers:

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

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

(d) The following production related activities:

(1) Equipment used exclusively for filling drums, pails, or other packaging containers with lubricating oils, waxes, and greases.

(2) Application of oils, greases, lubricants, or other nonvolatile materials as temporary protective coatings;

(3) Machining where an aqueous cutting coolant continuously floods the machining interface;

(4) Degreasing operations using 145 gallons of solvent per month; [326 IAC 8-3-2]

(5) Cleaners and solvents characterized as follows:

(A) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF); or

(B) Having a vapor pressure equal to or less than 0.7 kPA; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(6) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(7) Closed loop heating and cooling systems;

(8) Infrared cure equipment; and

(9) The following structural steel and bridge fabrication activities:

(A) Cutting 20000 linear feet or less of one inch (1") plate or equivalent; and

(B) Using 80 tons or less of welding consumables.

(e) Solvent recycling systems with batch capacity less than or equal to 100 gallons;

(f) The following water based activities:

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

(2) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, and on-site sewage treatment facility;

(3) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;

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

(5) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

(g) The following repair activities:

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

(2) Heat exchanger cleaning and repair; and

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

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

(i) Asbestos abatement projects regulated by 326 IAC 14-10;

(j) 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;

(k) 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;

(l) Blowdown for sight glass; boiler; compressors; pumps; and cooling tower;

(m) The following activities associated with emergencies:

(1) On-site fire and emergency response training approved by the department;

(2) One (1) wastewater treatment plant emergency generator, installed in 2003, using No. 2 fuel oil, with a maximum capacity of 147 hp; and

This unit is an affected facility under 40 CFR Part 63, Subpart ZZZZ (4Z).

(3) Stationary fire pumps;

(n) The following abrasive blasting operations controlled with fabric filters with a design grain loading of less than or equal to three one-hundredths grains per actual cubic foot (0.03 gr/acf) and a gas flow rate less than or equal to four thousand actual cubic feet per minute (4,000 acf/min):

(1) One (1) steel shot blaster, identified as Guyson blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 1.0 pound of steel shot per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(2) One (1) grit blaster, identified as Econoline blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pounds of abrasive per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(3) One (1) grit blaster, identified as Pangborn blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pound of grit per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(o) A laboratory as defined in 326 IAC 2-7(21)(D);

(p) Farm operations;

(q) The following VOC liquid storage tanks:

(1) One (1) heptane storage tank, identified as 403-1, with a maximum capacity of 250 gallons;

(2) One (1) heptane storage tank, identified as 403-2, with a maximum capacity of 250 gallons;

(3) One (1) heptane storage tank, identified as 403-3, with a maximum capacity of 250 gallons;

(4) One (1) heptane storage tank, identified as 403-4, with a maximum capacity of 250 gallons;

(5) One (1) No. 2 fuel oil storage tank, identified as 405, with a maximum capacity of 120 gallons;

(6) One (1) heptane storage tank, identified as 413-T1, with a maximum capacity of 15,500 gallons;

(7) One (1) No. 6 fuel oil storage tank, identified as 413-T9, with a capacity of 2,000,000 gallons;

(8) One (1) No. 2 fuel oil storage tank, identified as 413-T10, with a maximum capacity of 560 gallons;

(9) One (1) gasoline storage tank, identified as 413-T11, with a maximum capacity of 300 gallons;

(10) One (1) gasoline storage tank, identified as 413-T12, with a maximum capacity of 560 gallons;

(11) One (1) No. 2 fuel oil storage tank, identified as 413-T13, with a maximum capacity of 288 gallons;

(12) One (1) No. 2 fuel oil storage tank, identified as 413-T14, with a maximum capacity of 288 gallons;

(13) One (1) No. 2 fuel oil storage tank, identified as 413-T15, with a maximum capacity of 1000 gallons;

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

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T003-32577-00008, 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:

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

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

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

(c) A "responsible official" is defined at 326 IAC 2-7-1(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 V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

(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 T003-32577-00008 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 V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (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 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 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)] [40 CFR 64] [326 IAC 3-8]

(a) 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(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.

(b) 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.

(c) 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.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

C.11 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.12 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.13 Response to Excursions or Exceedances [40 CFR 64] [326 IAC 3-8] [326 IAC 2-7-5] [326 IAC 2-7-6]

(I) 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:

(a) 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.

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

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

(II)

(a) 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.

(b) 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.

(c) Based on the results of a determination made under paragraph (II)(a)(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 QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) 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).

(e) 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.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(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.

(g) 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.

(h) *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 (II)(a)(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.14 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.15 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]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

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

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

The statement must be submitted to:

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

The emission statement does require 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.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(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:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) 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.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [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 –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(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

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

(d) 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.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) carbon black unloading and transfer area, identified as EU-01, installed in 1961 and modified in 1996, with a maximum capacity of 18,916 pounds of filler per hour, using five (5) baghouses for particulate matter control, consisting of the following:

(1) One (1) baghouse for carbon black unloading, which is considered integral to the process, exhausting to stack 197; and

(2) Four (4) baghouses for carbon black transfer, which are considered integral to the process, exhausting to four (4) stacks: 356A, 356B, 356C, 356D, respectively.

(b) One (1) Banbury mixing area, identified as EU-02, constructed in 1961, modified in 1968, modified in 2007 to include the use of silica and silane binder, and approved for modification in 2013 to increase the use of silica and silane binder, with a total maximum capacity of 46,651 pounds of rubber, carbon black, silica, silane binder, and other chemicals per hour, and consisting of the following:

(1) One (1) mixing line, identified as #1 Banbury Mixing Line, consisting of the following:

(A) #1 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 210;

(B) #1 Banbury batchout, using no control, and exhausting to stack 216;

(C) #1 soap tank, using no control, and exhausting to stack 216;

(2) One (1) mixing line, identified as #2 Banbury Mixing Line, consisting of the following:

(A) #2 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 208;

(B) #2 milling line, using three (3) mills (#1, #4, and #5), using no control, and exhausting to stack 202;

(C) #2 Banbury batchout, using no control, and exhausting to stack 201;

(D) #2 soap tank, using no control, and exhausting to stack 201;

(3) One (1) mixing line, identified as #3 Banbury Mixing Line, consisting of the following:

(A) #3 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 200;

(B) #3 milling line, using three (3) mills (#1, #2, and #3), one (1) of which was constructed in 2007, using no control, and exhausting to stacks 286 and 414;

(C) #3 Banbury batchout, using no control, and exhausting to stack 203;

(D) #3 soap tank, using no control, and exhausting to stack 200;

Note 1: #1 Banbury Mixing Line and #3 Banbury Mixing Line typically operate in series.

Note 2: Particulate emissions are generated from the three (3) Banbury mixers and are controlled by three (3) baghouses.

(4) Cement room, using no control, and exhausting to stack 197;

(5) Pelletizer-dewater/incline conveyor, using no control, and exhausting to stack 211.

These units in the Banbury mixing area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

Note: When silane binder is added in the Banbury mixers, it results in VOC emissions both from the Banbury mixing area (EU-02) and the tire curing process (EU-05).

(c) Component preparation area, identified as EU-03, constructed prior to 1974, and consisting of the following processes:

(1) Milling operation, including one (1) stand-alone/recoupe mill installed in 2007, with a total maximum capacity of 49,080 pounds of rubber per hour, and using no control;

(2) Calendering operation, with a maximum capacity of 14,629 pounds of rubber per hour, using no control;

(3) Extruding operation, with a total maximum capacity of 36,762 pounds of rubber per hour, using no control, including the the following:
(A) Apex bead complexers (2), installed in 2008,
(B) One (1) Guilin tread end/sidewall extruder, constructed in 2010,
(C) Four (4) Apex bead extruders, constructed in 2010, and
(D) One (1) bead former, constructed in 2011

(4) Ink marking operation, with a maximum capacity of 46,964 pounds of rubber per hour, using no control.

The component preparation area consists of the following units:

Line/Machine	Emission unit	Stack ID #
#1 Tread Line	Cap extruder	324
#1 Tread Line	Cap extruder conveyor	325
#1 Tread Line	Mill #5-2	326
#2 Tread Line	Mill #8-3	327
#2 Tread Line	Tread line extruders	328
#2 Tread Line	Ink code marker	329
#3 Calender	Mill #11-4	330
#4 Roll Calender	Thread bar	173
#4 Roll Calender	Relax drums	174
#4 Roll Calender	Roof ventilator	186
#4 Roll Calender	Mill #10-4	254

#4 Roll Calender	Plastifier	255
Guilin tread line	Extruders	416
Guilin tread line	Mill	417
Guilin tread line	Cooling bath	418
WSW line	Four (4) mills/extruders/calenders	318
Recoupe line	Two (2) stand-alone mills	415

These units in the Component preparation area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(d) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and in 1997, with a maximum capacity of 604 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control; and

(4) Mud area, constructed in 1961, with a maximum capacity of 8,881,694 tires per year and 0.0027 pounds of solvent per tire, and exhausting to two (2) stacks: 9 and 11.

Note: This process is part of the extruding operation in the component preparation area.

These units in the Tread end cementing process are affected facilities under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(e) Tire curing process, identified as EU-05, constructed in 1961 and modified in 2004 and 2011, approved for modification in 2013 for increased throughput of silica and silane, consisting of two hundred ninety-four (204) curing presses, with a maximum individual capacity of 143.07 pounds of rubber per hour, using no control, and exhausting to thirty (30) stacks: 51 through 58, 60 through 66, 68, 69, 71, 73, 75, 77, 79, 80, and 82 through 88.

One hundred fifty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses to be constructed in 2014 through 2016, which were approved for construction in 2011.

These tire curing presses are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(f) Tire uniformity optimizer (TUO) module area, identified as EU-06, constructed in 1961 and modified in 2003, consisting of the following:

(1) White sidewall (WSW) grinding area, relocated in 2011, consisting of twelve (12) grinding units with a total maximum capacity of 35,223 pounds of rubber

tires per hour and 6,661,270 tires per year, using four (4) centrifugal separators as control, exhausting to (4) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
Three (3) WSW Grinders #1, #2, & #3	Centrifugal separator	278
Three (3) WSW Grinders #4, #5, & #6	Centrifugal separator	279
Three (3) WSW Grinders #7, #8, & #9	Centrifugal separator	280
Three (3) WSW Grinders #10, #11, & #12	Centrifugal separator	281

(2) RIS grinding area, consisting of seventeen (17) grinding units, of which ten (10) units were constructed in 1961 and modified in 2003, seven (7) units were constructed in 2007, and one (1) unit was constructed in 2011, with a total maximum capacity of 7,045 pounds of rubber tires per hour and 1,332,254 tires per year, using seventeen (17) centrifugal separators as control, and exhausting to seventeen (17) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
One (1) RIS Grinder #1	Centrifugal separator	258
One (1) RIS Grinder #2	Centrifugal separator	277
One (1) RIS Grinder #3	Centrifugal separator	282
One (1) RIS Grinder #4	Centrifugal separator	275
One (1) RIS Grinder #5	Centrifugal separator	259
One (1) RIS Grinder #6	Centrifugal separator	265
One (1) RIS Grinder #7	Centrifugal separator	266
One (1) RIS Grinder #8	Centrifugal separator	267
One (1) RIS Grinder #9	Centrifugal separator	268
One (1) RIS Grinder #10	Centrifugal separator	269
One (1) RIS Grinder #11	Centrifugal separator	270
One (1) RIS Grinder #12	Centrifugal separator	271
One (1) RIS Grinder #13	Centrifugal separator	272
One (1) RIS Grinder #14	Centrifugal separator	260
One (1) RIS Grinder #15	Centrifugal separator	261
One (1) RIS Grinder #16	Centrifugal separator	276
One (1) RIS Grinder #24	Centrifugal separator	274
One (1) RIS Grinder #25	Centrifugal separator	273

The units in the TUO module are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(g) One (1) green tire spray operation, installed in 1961, consisting of four (4) spray machines equipped with air atomizing spray heads, identified as GTS #1, #2, #3, and #5, with a maximum capacity of 8,881,694 tires per year and 0.088 gallon per tire, using baffle filters for particulate matter control, and exhausting to four (4) stacks 262, 263, 264, and 280;

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(h) One (1) white sidewall (WSW) protectant spray operation, installed in 1961, using three (3) spray heads each with two (2) nozzles, one (1) of which is high pressure, with a maximum capacity of 6,661,270 tires per year and 0.001 gallon per tire, using four (4) centrifugal separators as control, and exhausting to four (4) stacks 278, 279, 280, and 281;

Note: This operation exhausts to the same centrifugal separators and stacks as the WSW grinding operation (EU-06).

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(j) One (1) tire building area, constructed in 1961, with a maximum capacity of 47,290 pounds of tires per hour, using no control, exhausting at stack 279.

This area is an affected facility under 40 CFR Part 63, Subpart XXXX (4X).

Note: Emissions from the tire building area are negligible.

Insignificant activities:

(n) The following abrasive blasting operations controlled with fabric filters with a design grain loading of less than or equal to three one-hundredths grains per actual cubic foot (0.03 gr/acf) and a gas flow rate less than or equal to four thousand actual cubic feet per minute (4,000 acf/min):

(1) One (1) steel shot blaster, identified as Guyson blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 1.0 pound of steel shot per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(2) One (1) grit blaster, identified as Econoline blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pounds of abrasive per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(3) One (1) grit blaster, identified as Pangborn blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pound of grit per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

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

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

D.1.1 PSD Minor Limits [326 IAC 2-2]: PM, PM_{10}, $PM_{2.5}$, and VOC

In order to render 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

Carbon black/silica filler unloading and transfer area (EU-01): PM, PM_{10}, $PM_{2.5}$

(a) PM emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.51 pounds per hour.

(b) PM_{10} emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.40 pounds per hour.

(c) $PM_{2.5}$ emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.14 pounds per hour.

Banbury mixing area (EU-02): PM, PM_{10}, $PM_{2.5}$

(d) PM emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

(e) PM_{10} emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

(f) $PM_{2.5}$ emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

TUO module area (EU-06) - WSW Grinding area and WSW protectant spray: PM, PM_{10}, $PM_{2.5}$

(g) PM emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 4.70 pounds per hour.

(h) PM_{10} emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 2.50 pounds per hour.

(i) $PM_{2.5}$ emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 2.50 pounds per hour.

TUO module area (EU-06) - RIS grinding area: PM

(j) PM emissions from each of the seventeen (17) centrifugal separators associated with the TUO module area (EU-06) - RIS grinding area shall not exceed 0.18 pounds per hour.

Green tire spray: PM, PM_{10}, $PM_{2.5}$

(k) PM, PM_{10}, and $PM_{2.5}$ emissions from the green tire spray shall be controlled by baffle filters, and the baffle filters shall be operated in accordance with the manufacturer's specifications.

WSW protectant spray: PM, PM_{10}, $PM_{2.5}$

(l) PM, PM_{10}, and $PM_{2.5}$ emissions from the WSW protectant spray shall be controlled by centrifugal separators, and the centrifugal separators shall be operated in accordance with the manufacturer's specifications.

Abrasive blasters: PM, PM_{10}, $PM_{2.5}$

(m) PM emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(n) PM_{10} emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(o) $PM_{2.5}$ emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(p) PM after control emissions from the Pangborn blaster shall not exceed 1.5 pounds per hour.

(q) PM_{10} emissions after control from the Pangborn blaster shall not exceed 1.5 pounds per hour.

(r) $PM_{2.5}$ emissions after control from the Pangborn blaster shall not exceed 1.5 pounds per hour.

VOC emissions

(s) The total VOC emissions from the following operations shall not exceed 241.7 tons per twelve (12) consecutive month period, with compliance determined at the end of each month:

(1) Banbury mixing area (EU-02)
(2) Component preparation area (EU-03) - milling, calendaring, extruding and ink marking operations
(3) Tread end cementing process (EU-04)
(4) Tire curing process (EU-05)
(5) Tire uniformity optimizer (TUO) module area (EU-06) - WSW grinding and RIS grinding areas
(6) Green tire spray operation
(7) White sidewall (WSW) protectant spray operation

Compliance with these limits, combined with the potential to emit PM, $PM_{2.5}$, PM_{10}, and VOC, from all other emission units at this source, shall limit the source-wide total potential to emit of each pollutant to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate Emission Limits [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the listed emission unit shall not exceed the pounds per hour limit listed in the table below:

Emission Unit Description	Maximum process weight rate (tons/hr)	Particulate emission limit (lbs/hr)
Carbon black/silica filler unloading and transfer area (EU-01)	8.51	17.2
Banbury mixing area (EU-02)	23.33	33.8
TUO module area (EU-06) - WSW grinding area	17.61	28.0
TUO module area (EU-06) - RIS grinding area	3.52	9.5
Guyson blaster	-	0.551
Econoline blaster	0.30	1.83
Pangborn blaster	0.45	2.40

The pounds per hour limitations were calculated by the following:

Interpolation of the data for process weight rates 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

(b) Pursuant to 326 IAC 6-3-2(d), particulate emissions from the green tire spray shall be controlled by baffle filters, and the baffle filters shall be operated in accordance with the manufacturer's specifications.

(c) Pursuant to 326 IAC 6-3-2(d), particulate emissions from the WSW protectant spray shall be controlled by centrifugal separators, and the centrifugal separators shall be operated in accordance with the manufacturer's specifications.

D.1.3 Volatile Organic Compound (VOC) Emission Limit [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (BACT), the Permittee shall control the VOC emissions from the three (3) tread end cementers (#1, #2, and Guilin) (EU-04) using Best Available Control Technology (BACT). The BACT for the tread end cementers (EU-04) has been determined to be the following:

(a) VOC emissions after control from the three (3) tread end cementers (#1, #2, and Guilin) shall not exceed 5.25 grams per tread.

(b) One of the four boilers (#1, #2, #3 or #5) shall be in operation and controlling VOC emissions at all times the three (3) tread end cementers are in operation.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 Particulate Control and VOC Control

(a) In order to comply with Conditions D.1.1(a), (b), and (c) and D.1.2(a), the five (5) baghouses for particulate control shall be in operation and control emissions at all times the carbon black/silica filler transfer and unloading area (EU-01) is in operation.

(b) In order to comply with Conditions D.1.1(d), (e), and (f) and D.1.2(a), the three (3) baghouses for particulate control shall be in operation and control emissions from the Banbury mixing area (EU-02) at all times the facility is in operation.

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

(d) In order to comply with Conditions D.1.1(g), (h), (i), and (j) and D.1.2(a), the twenty-one (21) centrifugal separators for particulate control shall be in operation and control emissions from the TUO module area (EU-06) at all times the facility is in operation.

(e) In order to comply with Conditions D.1.1(k) and D.1.2(b), the baffle filters for particulate control shall be in operation and control emissions at all times the green tire spray operation is in operation.

(f) In order to comply with Conditions D.1.1(l) and D.1.2(c), the four (4) centrifugal separators for particulate control shall be in operation and control emissions at all times the WSW protectant spray operation is in operation.

(g) In order to comply with Conditions D.1.1(m), (n), and (o) and D.1.2(a), the fabric filters for particulate control shall be in operation and control emissions at all times the Econoline blaster is in operation.

(h) In order to comply with Conditions D.1.1(p), (q), and (r) and D.1.2(a), the fabric filters for particulate control shall be in operation and control emissions at all times the Pangborn blaster is in operation.

(i) In order to comply with Conditions D.1.1(s)(3) and D.1.3, the Permittee shall operate one (1) of the four (4) boilers (#1, #2, #3, and #5) to control VOC emissions from the three (3) tread end cementers at all times

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Conditions D.1.1(d) and (e) and D.1.2(a), the Permittee shall perform PM and PM_{10} testing on one (1) of the three (3) the Banbury mixing area (EU-02) baghouse stack exhausts (Stacks #200, 208, and 210), utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated on a different baghouse at least once every five (5) years from the date of this valid compliance demonstration.

(b) In order to demonstrate compliance with Conditions D.1.1(g) and D.1.2(a), the Permittee shall perform PM testing on one (1) of the four (4) TUO module area (EU-06) - WSW grinding centrifugal separator stack exhausts (Stacks #278, 279, 280, and 281), utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated on a different centrifugal separator at least once every five (5) years from the date of this valid compliance demonstration.

(c) In order to demonstrate compliance with Conditions D.1.1(s)(3) and D.1.3, the Permittee shall perform testing on one (1) of the four (4) boilers (Stacks #109, 114, and 257) controlling VOC emissions from the three (3) tread end cementers (EU-04) utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

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

D.1.7 Volatile Organic Compound (VOC) Emissions Determination

Compliance with the VOC emission limitation contained in Condition D.1.1(s) shall be determined as follows:

(a) The Permittee shall calculate the VOC emissions (in tons) each calendar month using the appropriate equation below for each of the listed processes.

For all equations below, unless otherwise specified, the maximum VOC emission factors shall be from the most recent version of the U.S. EPA's AP-42, Chapter 4.12 (Manufacture of Rubber Products).

(1) VOC emissions from the Banbury mixing area (EU-02) shall be calculated using the following equation:

VOC Emissions (tons/month) = (R_{mix} * MEF_{mix})/2000

Where: R_{mix} = pounds of rubber mixed per month; and
MEF_{mix} = 4.59×10^{-4} pounds of VOC per pound of rubber, this is the maximum AP-42 emission adjusted to accommodate VOC emissions from mixing rubber compounds with maximum silane usage

(2) VOC emissions from the component preparation area (EU-03) - milling operation shall be calculated using the following equation:

VOC Emissions (tons/month) = (Rmill * MEF_{mill})/2000

Where: R_{mill} = pounds of rubber milled per month; and
MEF_{mill} = 1.13×10^{-4} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds milled that month

(3) VOC emissions from component preparation area (EU-03) - calendering operation shall be calculated using the following equation:

VOC Emissions (tons/month) = ($R_{calender}$ * $MEF_{calender}$)/2000

Where: $R_{calender}$ = pounds of rubber calendered per month and
$MEF_{calender}$ = 5.59×10^{-5} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds calendered that month

(4) VOC emissions from component preparation area (EU-03) - extruding operation shall be calculated using the following equation:

VOC Emissions (tons/month) = ($R_{extrude}$ * $MEF_{extrude}$)/2000

Where: $R_{extrude}$ = pounds of rubber extruded per month and
$MEF_{extrude}$ = 1.23×10^{-5} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds extruded that month

(5) VOC emissions from the three (3) tread end cementers (#1, #2, and Guilin) shall be calculated using the following equation:

VOC Emissions (tons/month) = (T * C * VOC * O)/2000

Where: T = treads cemented per month in the tread end cementers;
C = pounds of cement used per tread
VOC = VOC content of cement (% by weight)
O = Overall control efficiency of boiler

(6) VOC emissions from the tire curing process (EU-05) shall be calculated using the following equation:

VOC Emissions (tons/month) = (R_{cure} * MEF_{cure})/2000

Where: R_{cure} = pounds of rubber cured per month and
MEF_{cure} = 4.07×10^{-4} pounds of VOC per pound of rubber, this is the maximum AP-42 emission adjusted to accommodate VOC emissions from curing rubber compounds with maximum silane usage

(7) VOC emissions from TUO module area (EU-06) - WSW grinding area shall be calculated using the following equation:

VOC Emissions (tons/month) = $(G_{WSW} * MEF_{WSW})/2000$

Where: G_{WSW} = pounds of rubber removed in WSW grinding area per month; calculated by multiplying the number of tires ground and the maximum weight of rubber removed per grind
MEF_{WSW} = 1.59×10^{-2} pounds of VOC per pound of rubber removed

(8) VOC emissions from the TUO module area (EU-06) - RIS grinding area shall be calculated using the following equation:

VOC Emissions (tons/month) = $(G_{RIS} * MEF_{RIS})/2000$

Where: G_{RIS} = pounds of rubber removed in RIS grinding area per month; calculated by multiplying the number of tires ground and the maximum weight of rubber removed per grind
MEF_{RIS} = 1.59×10^{-2} pounds of VOC per pound of rubber removed

(b) The Permittee shall calculate the VOC emissions (in tons) each calendar month as the VOC input by multiplying the VOC content of a coating or solvent by the amount of that coating or solvent used during the calendar month:

(1) Component preparation area (EU-03) - ink marking operation

(2) Mud room (EU-04)

(3) Green tire spray operation (Insignificant activity)

(4) WSW protectant spray operation (Insignificant activity)

D.1.8 Volatile Organic Compound (VOC) Emissions Determination

Compliance with the VOC emission limitation contained in Condition D.1.3 shall be determined as follows:

VOC emissions from the three (3) tread end cementers (EU-04) shall be calculated using the following equation:

VOC Emissions (g/tread) = (C * VOC * O)/2000

Where: C = g of cement used per tread
VOC = VOC content of cement (% by weight)
O = Overall control efficiency of boiler, based on the most recent stack test

D.1.9 Volatile Organic Compound (VOC) Emissions Determination [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC input limits contained in Conditions D.1.1 and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ,

reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

D.1.10 Visible Emissions Notations [40 CFR 64]

Pursuant to 40 CFR 64 and 326 IAC 2-7-5(1):

(a) Visible emission notations of the carbon black/silica filler transfer and unloading area (EU-01) baghouse stack exhausts (Stacks #197, 356A, 356B, 356C, and 356D), Banbury mixing area (EU-02) baghouse stack exhausts (Stacks #200, 208, and 210), and TUO module area (EU-06) - WSW grinders centrifugal separator stack exhausts (Stacks #278, 279, 280, 281) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee or contractor is a person who has worked or trained at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C- 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.1.11 Visible Emissions Notations

Pursuant to 326 IAC 2-7-5(1):

(a) Visible emission notations of the TUO module area (EU-06) centrifugal separator stack exhausts (Stacks #258 through 261 and 265 through 277) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee or contractor is a person who has worked or trained at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C- 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.1.12 Baghouse Parametric Monitoring [40 CFR 64]

Pursuant to 40 CFR 64 and 326 IAC 2-7-5(1), the Permittee shall perform automatic daily monitoring and recording of the pressure differential readings on the three (3) baghouses for the Banbury mixing area (EU-02). This information shall be provided by a PLC/differential pressure transducer based system. The system shall take daily readings of the baghouses pressure drop ranges and shall be maintained at 1.0 to 5.0 inches of water or range established during the latest stack test. Any reading outside this range shall sound an alarm/alert function for immediate response by maintenance personnel to shut the unit down until the situation is remedied. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - 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 Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.1.13 Broken or Failed Bag Detection

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

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

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.1.14 Boiler Operating Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the four boilers used to control VOC emissions from the three (3) tread end cementers measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less often than once per fifteen minutes. The output of this system shall be recorded as a three (3) hour average.

(b) The Permittee shall operate the boiler used to control VOC emissions from the three (3) tread end cementers at or above the 3-hour average temperature of 951°F or a temperature established during the latest stack test. When for any one reading, the temperature is below this temperature, the Permittee shall take reasonable response steps. Section C- Response to Excursions and Exceedances contains the Permittee's obligations with regard to the response steps required by this condition. A reading that is below this temperature is not a deviation from this permit. Failure to take response steps shall be considered as a deviation from the permit.

D.1.15 Boiler Parametric Monitoring

Pursuant to 326 IAC 2-7-5(1), the Permittee shall record the fan amperage of the capture system used in conjunction with the tread end cementer at least once per day when the tread end cementing process is in operation. When for any one reading, the fan amperage is outside the normal operating range of 6.8 to 7.2 amps or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C- Response to Excursions and Exceedances contains the Permittee's obligations with regard to the response steps required by this condition. A reading that is outside this range is not a deviation from this permit. Failure to take response steps shall be considered as a deviation from the permit.

D.1.16 Surface Coating Particulate Monitoring

(a) To monitor the performance of the baffles, weekly inspections of the baffle filters shall be conducted to verify the placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the green tire spray operation stacks (Stacks #262, 263, 264, and 280) and WSW protectant spray operation stacks (Stacks #278, 279, 280, 281) while the spray operations are operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - 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.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the sides of the building and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - 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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.17 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1(s) and D.1.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC input and emission limits established in Conditions D.1.1(s) and D.1.3.

(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;

(A) Records shall include purchase orders, invoices, usage logs or other reasonable methods and material safety data sheets (MSDS), VOC data sheets, certificate of analysis or other means necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) The cleanup solvent usage for each month;

(4) The weight of VOCs emitted for each compliance period.

(b) To document the compliance status with Conditions D.1.10 and D.1.11, the Permittee shall maintain records of daily visible emission notations of the stack exhausts. The Permittee shall include in its daily record when a visible emission reading is not taken and the reason for the lack of these readings (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.1.12, the Permittee shall maintain the daily automatic or manual readings of the Banbury mixing area (EU-02) baghouses differential pressure. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of these readings (e.g. the process did not operate that day).

(d) To document the compliance status with Condition D.1.14, the Permittee shall maintain continuous temperature records (on a 3-hour average basis) for the boiler used to control VOC emissions from the tread end cementers (EU-04) and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(e) To document the compliance status with Condition D.1.15, the Permittee shall daily records of the fan amperage of the capture system for the tread end cementers (EU-04). The Permittee shall include in its daily record when a fan amperage reading is not taken and the reason for the lack of fan amperage reading (e.g., the process did not operate that day).

(f) To document compliance with Condition D.1.16, the Permittee shall maintain a log of weekly overspray observations and daily and monthly inspections.

(g) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligation with regard to the records required by this condition.

D.1.18 Reporting Requirements

The Permittee shall submit a semi-annual summary of the information to document the compliance status with Condition D.1.1(s), not later than thirty (30) days after the end of the six (6)-month period being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. This report requires the certification by a “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) Four (4) boilers consisting of the following, identified as EU-07:

(1) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boilers, identified as Boiler #1, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(2) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boilers, identified as Boiler #2, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(3) One (1) natural gas fired boiler, identified as Boiler #3, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 114;

(4) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, constructed in 1974, identified as Boiler #5, with a maximum heat input capacity of 130 million Btu per thermal, using no control, and exhausting to stack 257.

These units are affected facilities under 40 CFR Part 63, Subpart DDDDD (5D).

Note: The three (3) tread end cementers (EU-04) vents to these boilers for VOC control.

Insignificant units:

(a) The following combustion related activities:

(1) One (1) natural gas-fired hot water heating system, installed in 2004, with a maximum input capacity of 0.18 million Btu per hour;

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(2) One (1) fire system water tank heating boiler, installed in 2003, using No. 2 fuel oil, with a maximum throughput of 1.54 MMBtu/hr; and

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(3) Two (2) diesel fire pumps, identified as #1 and #2, installed in 1973, using No. 2 fuel oil, each with a maximum capacity of 275 hp;

These units are affected facilities under 40 CFR Part 63, Subpart ZZZZ (4Z).

(m) The following activities associated with emergencies:

(2) One (1) wastewater treatment plant emergency generator, installed in 2003, using No. 2 fuel oil, with a maximum capacity of 147 hp; and

This unit is an affected facility under 40 CFR Part 63, Subpart ZZZZ (4Z).

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

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

D.2.1 PSD Minor Limits [326 IAC 2-2]: SO_2 and NO_x

In order to render 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The SO_2 emissions from Boilers #1, #2, #3, and #5 and all combustion units shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The NO_X emissions from Boilers #1, #2, #3, and #5 and all combustion units shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these emission limits will ensure that the limited potential to emit from the source is less than 250 tons of SO_2 and NO_X per year and render the requirements of 326 IAC 2-2 not applicable.

D.2.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boilers #1, #2, and #5 shall be limited as follows:

(a) One and six-tenths (1.6) pounds per MMBtu when combusting residual fuel oil; and

(b) Five-tenths (0.5) pounds per MMBtu when combusting distillate fuel oil.

Note: Residual fuel oil is No. 6 fuel oil. Distillate fuel oil is No. 2 fuel oil and diesel fuel.

D.2.3 Particulate Emissions Limitations [326 IAC 6-2]

(a) Pursuant to 326 IAC 6-2-3 (Particulate Limitations for Sources of Indirect Heating) the PM emissions from Boilers #1, #2, and #3 shall each be limited to 0.60 pounds per MMBtu heat input, and the PM emissions from Boiler #5 shall be limited to 0.34 pounds per MMBtu heat input.

These limitations are based on the following equation:

$$Pt = \frac{C * a * h}{76.5 * Q^{0.75} * N^{0.25}}$$

Where: C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter (μ/m^3) for a period not to exceed a sixty (60) minute time period.

Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour (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 operation permit application, except when some lower capacity is contained in the

facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input.

h = Stack height in feet

(b) Pursuant to 326 IAC 6-2-4 (Particulate Limitations for Sources of Indirect Heating) the PM emissions from the fire system water tank heating boiler and hot water heating system shall each be limited to 0.25 pounds per MMBtu heat input.

These limitations are based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour (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 operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

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

The Permittee shall conduct stack testing for opacity when burning No.6 fuel oil in Boiler #5. Compliance shall be determined by a performance stack test. The Permittee shall perform opacity testing utilizing Method 9 (40 CFR 60, Appendix A), or other methods as approved by the Commissioner at least once every five (5) years. The Permittee shall not be required to perform opacity testing should No. 6 fuel oil not be used in Boiler #5 during the five (5) year period. Opacity testing shall be performed no later than three (3) months from the date of switching to No. 6 fuel oil. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.2.6 Sulfur Dioxide (SO_2) Emissions

Compliance with the SO_2 emissions limit in Condition D.2.1(a) shall be determined by using the following equation:

Total SO_2 emissions (tons/month) = SO_2[No. 2 fuel oil] + SO_2[No. 6 fuel oil] + SO_2[natural gas]

(a) For No. 2 fuel oil (Boilers #1, #2, #5, and fire system boiler):

SO_2 emissions (tons/month) = $T * EF_{SO2} / 2000$

Where: T = Total throughput of No. 2 fuel oil for the boilers in kilogallons per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= (142 * Percent (%) sulfur content, by weight * 100) lb SO_2 per kilogallon

(b) For No. 2 fuel oil (fire pumps and emergency generator):

SO_2 emissions (tons/month) = $\sum(H * O) * EF_{SO2} / 2000$

Where: H = Horsepower of each unit
O = Hours each unit is operated per month
EF_{SO2} = AP-42 Emission Factor (Chapter 3.3, Table 3.3-1)
= 0.00205 lb SO_2 per horsepower-hour

(c) For No. 6 fuel oil:

SO_2 emissions (tons/month) = $T * EF_{SO2} / 2000$

Where: T = Source-wide throughput of No. 6 fuel oil in kilogallons per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= (157 * Percent (%) sulfur content, by weight * 100) lb SO_2 per kilogallon

(d) For natural gas:

SO_2 emissions (tons/month) = T * 0.6 / 2000

Where: T = Source-wide throughput of natural gas in million cubic feet (MMCF) per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.4, Table 1.4-2)
= 0.6 lb SO_2 / MMCF

D.2.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.2.1(a) and D.2.2 shall be determined utilizing one (1) of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate the fuel oil sulfur content by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance with Condition D.2.2 may also be determined by conducting a stack test for sulfur dioxide emissions from Boilers #1, #2, and #5 using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.2.8 Emissions of Nitrogen Oxides (NO_X)

Compliance with the NO_X emissions limit in Condition D.2.1(b) shall be determined by using the following equation:

Total NO_x emissions (tons/month) = NO_x[No. 2 fuel oil] + NO_x[No. 6 fuel oil] + NO_x[natural gas]

(a) For No. 2 fuel oil:

NO_x emissions (tons/month) = $\sum(T) * EF_{NOx} / 2000$

Where: T = Throughput of No. 2 fuel oil in kilogallons per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= 24.0 lb NO_x per kilogallon (Boiler #5)
= 20.0 lb NO_x per kilogallon (Boilers #1, #2, and fire system boiler)

(b) For No. 2 fuel oil (fire pumps and emergency generator):

NO_x emissions (tons/month) = $\sum(H * O) * EF_{SO2} / 2000$

Where: H = Horsepower of each unit
O = Hours each unit is operated per month
EF_{NOx} = AP-42 Emission Factor (Chapter 3.3, Table 3.3-1)
= 0.031 lb NO_x per horsepower-hour

(c) For No. 6 fuel oil:

NO_x emissions (tons/month) = $\sum(T) * EF_{NOx} / 2000$

Where: T = Throughput of No. 6 fuel oil in kilogallons per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= 47.0 lb NO_x per kilogallon (Boiler #5)
= 55.0 lb NO_x per kilogallon (Boilers #1 and #2)

(d) For natural gas:

NO_x emissions (tons/month) = $\sum(T) * EF_{NOx} / 2000$

Where: T = Throughput of natural gas fuel oil in kilogallons per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.4, Table 1.4-1)
= 280.0 lb NO_x per MMCF (Boiler #5)
= 100.0 lb NO_x per MMCF (Boilers #1, #2, #3, and hot water heater)

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

D.2.9 Visible Emissions Notations

(a) Visible emission notations of the boiler#1, #2, and #5 stack exhaust shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - 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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.10 Record Keeping Requirements

(a) To document the compliance status with Conditions D.2.1(a) and D.2.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limits established in Condition D.2.1(a) and D.2.2.

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

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

(3) Fuel supplier certifications;

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document the compliance status with Condition D.2.1(b), the Permittee shall maintain records of the actual monthly natural gas and fuel oil usage and equivalent NO_X emissions.

(c) To document the compliance status with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the Boiler #1, #2, and #5 stack exhaust while combusting fuel oil. The Permittee shall include in its daily record when a visible emission reading is not taken and the reason for the lack of these readings (e.g. the process did not operate that day).

(d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligation with regard to the records required by this condition.

D.2.11 Reporting Requirements

The Permittee shall submit a semi-annual summary of the information to document the compliance status with Condition D.2.1, not later than thirty (30) days after the end of the six (6)-month period being reported. Section C - General Reporting Requirements contains the

Permittee's obligation with regard to the reporting required by this condition. This report requires the certification by a “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(4) Degreasing operations using 145 gallons of solvent per month; [326 IAC 8-3-2]

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

D.3.1 Organic Solvent Degreasing Operations [32 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2(a), the Permittee shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) One (1) Banbury mixing area, identified as EU-02, constructed in 1961, modified in 1968, modified in 2007 to include the use of silica and silane binder, and approved for modification in 2013 to increase the use of silica and silane binder, with a total maximum capacity of 46,651 pounds of rubber, carbon black, silica, silane binder, and other chemicals per hour, and consisting of the following:

(1) One (1) mixing line, identified as #1 Banbury Mixing Line, consisting of the following:

(A) #1 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 210;

(B) #1 Banbury batchout, using no control, and exhausting to stack 216;

(C) #1 soap tank, using no control, and exhausting to stack 216;

(2) One (1) mixing line, identified as #2 Banbury Mixing Line, consisting of the following:

(A) #2 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 208;

(B) #2 milling line, using three (3) mills (#1, #4, and #5), using no control, and exhausting to stack 202;

(C) #2 Banbury batchout, using no control, and exhausting to stack 201;

(D) #2 soap tank, using no control, and exhausting to stack 201;

(3) One (1) mixing line, identified as #3 Banbury Mixing Line, consisting of the following:

(A) #3 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 200;

(B) #3 milling line, using three (3) mills (#1, #2, and #3), one (1) of which was constructed in 2007, using no control, and exhausting to stacks 286 and 414;

(C) #3 Banbury batchout, using no control, and exhausting to stack 203;

(D) #3 soap tank, using no control, and exhausting to stack 200;

Note 1: #1 Banbury Mixing Line and #3 Banbury Mixing Line typically operate in series.

Note 2: Particulate emissions are generated from the three (3) Banbury mixers and are controlled by three (3) baghouses.

(4) Cement room, using no control, and exhausting to stack 197;

(5) Pelletizer-dewater/incline conveyor, using no control, and exhausting to stack 211.

These units in the Banbury mixing area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

Note: When silane binder is added in the Banbury mixers, it results in VOC emissions both from the Banbury mixing area (EU-02) and the tire curing process (EU-05).

(c) Component preparation area, identified as EU-03, constructed prior to 1974, and consisting of the following processes:

(1) Milling operation, including one (1) stand-alone/recoupe mill installed in 2007, with a total maximum capacity of 49,080 pounds of rubber per hour, and using no control;

(2) Calendering operation, with a maximum capacity of 14,629 pounds of rubber per hour, using no control;

(3) Extruding operation, with a total maximum capacity of 36,762 pounds of rubber per hour, using no control, including the the following:
(A) Apex bead complexers (2), installed in 2008,
(B) One (1) Guilin tread end/sidewall extruder, constructed in 2010,
(C) Four (4) Apex bead extruders, constructed in 2010, and
(D) One (1) bead former, constructed in 2011

(4) Ink marking operation, with a maximum capacity of 46,964 pounds of rubber per hour, using no control.

The component preparation area consists of the following units:

Line/Machine	Emission unit	Stack ID #
#1 Tread Line	Cap extruder	324
#1 Tread Line	Cap extruder conveyor	325
#1 Tread Line	Mill #5-2	326
#2 Tread Line	Mill #8-3	327
#2 Tread Line	Tread line extruders	328
#2 Tread Line	Ink code marker	329
#3 Calender	Mill #11-4	330
#4 Roll Calender	Thread bar	173
#4 Roll Calender	Relax drums	174
#4 Roll Calender	Roof ventilator	186
#4 Roll Calender	Mill #10-4	254
#4 Roll Calender	Plastifier	255
Guilin tread line	Extruders	416
Guilin tread line	Mill	417
Guilin tread line	Cooling bath	418
WSW line	Four (4) mills/extruders/calenders	318
Recoupe line	Two (2) stand-alone mills	415

These units in the Component preparation area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(d) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and

in 1997, with a maximum capacity of 604 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control; and

(4) Mud area, constructed in 1961, with a maximum capacity of 8,881,694 tires per year and 0.0027 pounds of solvent per tire, and exhausting to two (2) stacks: 9 and 11.

Note: This process is part of the extruding operation in the component preparation area.

These units in the Tread end cementing process are affected facilities under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(e) Tire curing process, identified as EU-05, constructed in 1961 and modified in 2004 and 2011, approved for modification in 2013 for increased throughput of silica and silane, consisting of two hundred ninety-four (204) curing presses, with a maximum individual capacity of 143.07 pounds of rubber per hour, using no control, and exhausting to thirty (30) stacks: 51 through 58, 60 through 66, 68, 69, 71, 73, 75, 77, 79, 80, and 82 through 88.

One hundred fifty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses to be constructed in 2014 through 2016, which were approved for construction in 2011.

These tire curing presses are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(f) Tire uniformity optimizer (TUO) module area, identified as EU-06, constructed in 1961 and modified in 2003, consisting of the following:

(1) White sidewall (WSW) grinding area, relocated in 2011, consisting of twelve (12) grinding units with a total maximum capacity of 35,223 pounds of rubber tires per hour and 6,661,270 tires per year, using four (4) centrifugal separators as control, exhausting to (4) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
Three (3) WSW Grinders #1, #2, & #3	Centrifugal separator	278
Three (3) WSW Grinders #4, #5, & #6	Centrifugal separator	279
Three (3) WSW Grinders #7, #8, & #9	Centrifugal separator	280
Three (3) WSW Grinders #10, #11, & #12	Centrifugal separator	281

(2) RIS grinding area, consisting of seventeen (17) grinding units, of which ten (10) units were constructed in 1961 and modified in 2003, seven (7) units were constructed in 2007, and one (1) unit was constructed in 2011, with a total maximum capacity of 7,045 pounds of rubber tires per hour and 1,332,254 tires per year, using seventeen (17) centrifugal separators as control, and

exhausting to seventeen (17) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
One (1) RIS Grinder #1	Centrifugal separator	258
One (1) RIS Grinder #2	Centrifugal separator	277
One (1) RIS Grinder #3	Centrifugal separator	282
One (1) RIS Grinder #4	Centrifugal separator	275
One (1) RIS Grinder #5	Centrifugal separator	259
One (1) RIS Grinder #6	Centrifugal separator	265
One (1) RIS Grinder #7	Centrifugal separator	266
One (1) RIS Grinder #8	Centrifugal separator	267
One (1) RIS Grinder #9	Centrifugal separator	268
One (1) RIS Grinder #10	Centrifugal separator	269
One (1) RIS Grinder #11	Centrifugal separator	270
One (1) RIS Grinder #12	Centrifugal separator	271
One (1) RIS Grinder #13	Centrifugal separator	272
One (1) RIS Grinder #14	Centrifugal separator	260
One (1) RIS Grinder #15	Centrifugal separator	261
One (1) RIS Grinder #16	Centrifugal separator	276
One (1) RIS Grinder #24	Centrifugal separator	274
One (1) RIS Grinder #25	Centrifugal separator	273

The units in the TUO module are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(g) One (1) green tire spray operation, installed in 1961, consisting of four (4) spray machines equipped with air atomizing spray heads, identified as GTS #1, #2, #3, and #5, with a maximum capacity of 8,881,694 tires per year and 0.088 gallon per tire, using baffle filters for particulate matter control, and exhausting to four (4) stacks 262, 263, 264, and 280;

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(h) One (1) white sidewall (WSW) protectant spray operation, installed in 1961, using three (3) spray heads each with two (2) nozzles, one (1) of which is high pressure, with a maximum capacity of 6,661,270 tires per year and 0.001 gallon per tire, using four (4) centrifugal separators as control, and exhausting to four (4) stacks 278, 279, 280, and 281;

Note: This operation exhausts to the same centrifugal separators and stacks as the WSW grinding operation (EU-06).

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(j) One (1) tire building area, constructed in 1961, with a maximum capacity of 47,290 pounds of tires per hour, using no control, exhausting at stack 279.

This area is an affected facility under 40 CFR Part 63, Subpart XXXX (4X).

Note: Emissions from the tire building area are negligible.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR Part 63]

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

(a) Pursuant to 40 CFR Part 63.6013, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 17 of 40 CFR Part 63, Subpart XXXX (4X).

(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

E.1.2 NESHAP for Rubber Tire Manufacturing [326 IAC 20-55] [40 CFR Part 63, Subpart XXXX (4X)]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart XXXX (4X) (included as Attachment A of this permit), which are incorporated by reference as 326 IAC 20-55, for the facilities listed in Section E.1:

(a) 40 CFR 63.5980
(b) 40 CFR 63.5981(a)
(c) 40 CFR 63.5982(a),(b)(1),(b)(4),(e)
(d) 40 CFR 63.5983(b)
(e) 40 CFR 63.5984
(f) 40 CFR 63.5985(b)
(g) 40 CFR 63.5990(a),(b)
(h) 40 CFR 63.5994(a),(b)(1)-(2), (d)(2)
(i) 40 CFR 63.5996
(j) 40 CFR 63.6003(a),(b)
(k) 40 CFR 63.6004(a),(b)
(l) 40 CFR 63.6009(a),(e)(1), (f)
(m) 40 CFR 63.6010(a),(b)(3)-(5),(c)(1)-(5),(c)(7),(d),(e),(g)
(n) 40 CFR 63.6011(a),(b)
(o) 40 CFR 63.6012
(p) 40 CFR 63.6013
(q) 40 CFR 63.6014
(r) 40 CFR 63.6015
(s) Table 1 to Subpart XXXX of Part 63
(t) Table 6 to Subpart XXXX of Part 63
(u) Table 9 to Subpart XXXX of Part 63
(v) Table 10 to Subpart XXXX of Part 63
(w) Table 15 to Subpart XXXX of Part 63
(x) Table 16 to Subpart XXXX of Part 63
(y) Table 17 to Subpart XXXX of Part 63

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and in 1997, with a maximum capacity of 604 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control; and

(4) Mud area, constructed in 1961, with a maximum capacity of 8,881,694 tires per year and 0.0027 pounds of solvent per tire, and exhausting to two (2) stacks: 9 and 11.

Note: This process is part of the extruding operation in the component preparation area.

These units in the Tread end cementing process are affected facilities under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(g) One (1) green tire spray operation, installed in 1961, consisting of four (4) spray machines equipped with air atomizing spray heads, identified as GTS #1, #2, #3, and #5, with a maximum capacity of 8,881,694 tires per year and 0.088 gallon per tire, using baffle filters for particulate matter control, and exhausting to four (4) stacks 262, 263, 264, and 280;

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(h) One (1) white sidewall (WSW) protectant spray operation, installed in 1961, using three (3) spray heads each with two (2) nozzles, one (1) of which is high pressure, with a maximum capacity of 6,661,270 tires per year and 0.001 gallon per tire, using four (4) centrifugal separators as control, and exhausting to four (4) stacks 278, 279, 280, and 281;

Note: This operation exhausts to the same centrifugal separators and stacks as the WSW grinding operation (EU-06).

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

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

New Source Performance Standards (NSPS) Requirements [40 CFR Part 60]

E.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR Part 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, except as otherwise specified in 40 CFR Part 60, Subpart BBB (3B).

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

E.2.2 NSPS for Rubber Tire Manufacturing [36 IAC 12-1] [40 CFR Part 60, Subpart BBB (3B)]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart BBB (3B) (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, for the facilities listed in Section E.2:

(a) 40 CFR 60.540(a),(c)
(b) 40 CFR 60.541
(c) 40 CFR 60.542(a)(3) and (5)
(d) 40 CFR 60.543(a),(b),(c),(l),(m)
(e) 40 CFR 60.545(d)
(f) 40 CFR 60.546(c)
(g) 40 CFR 60.547
(h) 40 CFR 60.548

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant units:

(a) The following combustion related activities:

(3) Two (2) diesel fire pumps, identified as #1 and #2, installed in 1973, using No. 2 fuel oil, each with a maximum capacity of 275 hp;

These units are affected facilities under 40 CFR Part 63, Subpart ZZZZ (4Z).

(m) The following activities associated with emergencies:

(2) One (1) wastewater treatment plant emergency generator, installed in 2003, using No. 2 fuel oil, with a maximum capacity of 147 hp; and

This unit is an affected facility under 40 CFR Part 63, Subpart ZZZZ (4Z).

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR Part 63]

E.3.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR Part 63.6665, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 8 of 40 CFR Part 63, Subpart ZZZZ (4Z).

(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

E.3.2 NESHAP for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ (4Z)]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (4Z) (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 20-82, for the facilities listed in Section E.3:

(a) 40 CFR 63.6580
(b) 40 CFR 63.6585
(c) 40 CFR 63.6590(a)(1)(ii)
(d) 40 CFR 63.6595(a)(1) and (c)
(e) 40 CFR 63.6602
(f) 40 CFR 63.6604(b)
(g) 40 CFR 63.6605
(h) 40 CFR 63.6625(e)(2), (f), (h), (i)

(i) 40 CFR 63.6635
(j) 40 CFR 63.6640(a), (b), (e), and (f)
(k) 40 CFR 63.6645(a)(5)
(l) 40 CFR 63.6650
(m) 40 CFR 63.6655
(n) 40 CFR 63.6660
(o) 40 CFR 63.6665
(p) 40 CFR 63.6670
(q) 40 CFR 63.6675
(r) Table 2c to Subpart ZZZZ of Part 63
(s) Table 6 to Subpart ZZZZ of Part 63
(t) Table 7 to Subpart ZZZZ of Part 63
(u) Table 8 to Subpart ZZZZ of Part 63

SECTION E.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(i) Four (4) boilers consisting of the following, identified as EU-07:

(1) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #1, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(2) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #2, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(3) One (1) natural gas fired boiler, identified as Boiler #3, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 114;

(4) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #5, constructed in 1974, with a maximum heat input capacity of 130 million Btu per thermal, using no control, and exhausting to stack 257.

These units are affected facilities under 40 CFR Part 63, Subpart DDDDD (5D).

Note: The three (3) tread end cementers (EU-04) vents to these boilers for VOC control.

Insignificant units:

(c) The following combustion related activities:

(1) One (1) natural gas-fired hot water heating system, installed in 2004, with a maximum input capacity of 0.18 million Btu per hour;

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(2) One (1) fire system water tank heating boiler, installed in 2003, using No. 2 fuel oil, with a maximum throughput of 1.54 MMBtu/hr; and

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR Part 63]

E.4.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR Part 63.7565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 10 of 40 CFR Part 63, Subpart DDDDD (5D).

(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

E.4.2 NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [326 IAC 20-95] [40 CFR Part 63, Subpart DDDDD (5D)]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (5D) (included as Attachment D of this permit), which are incorporated by reference as 326 IAC 20-95, for the facilities listed in Section E.4:

(a) 40 CFR 63.7480
(b) 40 CFR 63.7485
(c) 40 CFR 63.7490
(d) 40 CFR 63.7491
(e) 40 CFR 63.7495(b), (d)
(f) 40 CFR 63.7499
(g) 40 CFR 63.7500
(h) 40 CFR 63.7501
(i) 40 CFR 63.7505
(j) 40 CFR 63.7510
(k) 40 CFR 63.7515
(l) 40 CFR 63.7520
(m) 40 CFR 63.7521
(n) 40 CFR 63.7522
(o) 40 CFR 63.7525
(p) 40 CFR 63.7530
(q) 40 CFR 63.7533
(r) 40 CFR 63.7535
(s) 40 CFR 63.7540
(t) 40 CFR 63.7541
(u) 40 CFR 63.7545
(v) 40 CFR 63.7550
(w) 40 CFR 63.7555
(x) 40 CFR 63.7560
(y) 40 CFR 63.7565
(z) 40 CFR 63.7570
(aa) 40 CFR 63.7575
(bb) Table 2 to Subpart DDDDD of Part 63
(cc) Table 3 to Subpart DDDDD of Part 63
(dd) Table 4 to Subpart DDDDD of Part 63
(ee) Table 5 to Subpart DDDDD of Part 63
(ff) Table 6 to Subpart DDDDD of Part 63
(gg) Table 7 to Subpart DDDDD of Part 63
(hh) Table 8 to Subpart DDDDD of Part 63
(ii) Table 9 to Subpart DDDDD of Part 63
(jj) Table 10 to Subpart DDDDD of Part 63
(kk) Table 11 to Subpart DDDDD of Part 63

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

Source Name: BF Goodrich Tire Manufacturing
Source Address: 18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.: T003-32577-00008

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: BF Goodrich Tire Manufacturing
Source Address: 18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.: T003-32577-00008

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 Semi-Annual Report

Source Name:	BF Goodrich Tire Manufacturing
Source Address:	18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.:	T003-32577-00008
Facilities:	Banbury mixing area (EU-02), component preparation area (EU-03), tread end cementing process (EU-04), tire curing process (EU-05), tire uniformity optimizer (TUO) module area (EU-06), green tire spray operation, white sidewall (WSW) protectant spray operation
Parameter:	Total VOC emissions
Limit:	Shall not exceed 241.7 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

YEAR: _____

Month	Total VOC Emissions	Total VOC Emissions	Total VOC Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

☐ 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 Semi-Annual Report

Source Name: BF Goodrich Tire Manufacturing
Source Address: 18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.: T003-32577-00008
Facilities: Boilers #1, #2, #3, and #5, and combustion activities.
Parameter: Total SO_2 emissions
Limit: Shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

YEAR: _____

Month	Total SO_2 Emissions	Total SO_2 Emissions	Total SO_2 Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

☐ 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 Semi-Annual Report

Source Name: BF Goodrich Tire Manufacturing
Source Address: 18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.: T003-32577-00008
Facilities: Boilers #1, #2, #3, and #5, and combustion activities.
Parameter: Total NO_x emissions
Limit: Shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

YEAR: _____

Month	Total NO_x Emissions	Total NO_x Emissions	Total NO_x Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

☐ 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 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: BF Goodrich Tire Manufacturing
Source Address: 18906 Highway 24 East, Woodburn, Indiana 46797
Part 70 Permit No.: T003-32577-00008

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 Quality
Office of Air Quality

Attachment A

Title 40: Protection of Environment

Part 63—National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart XXXX—National Emissions Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing

Source: 67 FR 45598, July 9, 2002, unless otherwise noted.

What This Subpart Covers

§ 63.5980 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for rubber tire manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.5981 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a rubber tire manufacturing facility that is located at, or is a part of, a major source of hazardous air pollutant (HAP) emissions.

(1) Rubber tire manufacturing includes the production of rubber tires and/or the production of components integral to rubber tires, the production of tire cord, and the application of puncture sealant. Components of rubber tires include, but are not limited to, rubber compounds, sidewalls, tread, tire beads, tire cord and liners. Other components often associated with rubber tires but not integral to the tire, such as wheels, inner tubes, tire bladders, and valve stems, are not components of rubber tires or tire cord and are not subject to this subpart.

(2) A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

(b) You are not subject to this subpart if the affected source at your rubber tire manufacturing facility meets either of the conditions described in paragraph (b)(1) or (2) of this section.

(1) You own or operate a tire cord production affected source, but the primary product produced at the affected source is determined to be subject to another subpart under this part 63 as of the effective date of that subpart (publication date of the final rule) or startup of the source, whichever is later. In this case, you must determine which subpart applies to your source and you must be in compliance with the applicable subpart by the compliance date of that subpart. The primary product is the product that is produced for the greatest operating time over a 5-year period, based on expected utilization for the 5 years following the compliance date or following initial startup of the source, whichever is later.

(2) Your rubber tire manufacturing affected source is a research and development facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

§ 63.5982 What parts of my facility does this subpart cover?

(a) This subpart applies to each existing, new, or reconstructed affected source at facilities engaged in the manufacture of rubber tires or their components.

(b) The affected sources are defined in paragraph (b)(1) of this section (tire production), paragraph (b)(2) of this section (tire cord production), paragraph (b)(3) of this section (puncture sealant application), and paragraph (b)(4) of this section (rubber processing).

(1) The tire production affected source is the collection of all processes that use or process cements and solvents as defined in § 63.6015, located at any rubber tire manufacturing facility. It includes, but is not limited to: Storage and mixing vessels and the transfer equipment containing cements and/or solvents; wastewater handling and treatment operations; tread and cement operations; tire painting operations; ink and finish operations; undertread cement operations; process equipment cleaning materials; bead cementing operations; tire building operations; green tire spray operations; extruding, to the extent cements and solvents are used; cement house operations; marking operations; calendar operations, to the extent solvents are used; tire striping operations; tire repair operations; slab dip operations; other tire building operations, to the extent that cements and solvents are used; and balance pad operations.

(2) The tire cord production affected source is the collection of all processes engaged in the production of tire cord. It includes, but is not limited to: dipping operations, drying ovens, heat-set ovens, bulk storage tanks, mixing facilities, general facility vents, air pollution control devices, and warehouse storage vents.

(3) The puncture sealant application affected source is the puncture sealant application booth operation used to apply puncture sealant to finished tires.

(4) The rubber processing affected source is the collection of all rubber mixing processes (e.g., banburys and associated drop mills) that either mix compounds or warm rubber compound before the compound is processed into components of rubber tires. The mixed rubber compound itself is also included in the rubber processing affected source. There are no emission limitations or other requirements for the rubber processing affected source.

(c) An affected source is a new affected source if construction of the affected source commenced after October 18, 2000, and it met the applicability criteria of § 63.5981 at the time construction commenced.

(d) An affected source is reconstructed if it meets the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.5983 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, except as provided in §§ 63.5982(b)(4) and 63.5981(b)(1), you must comply with the emission limitations for new and reconstructed sources in this subpart upon startup.

(b) If you have an existing affected source, you must comply with the emission limitations for existing sources no later than July 11, 2005.

(c) 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 affected source(s) must be in compliance with existing source emission limitations no later than 3 years after the date on which the area source became a major source.

(d) You must meet the notification requirements in § 63.6009 according to the schedule in § 63.6009 and in subpart A of this part. Some of the notifications must be submitted before the date you are required to comply with the emission limitations in this subpart.

Emission Limits for Tire Production Affected Sources

§ 63.5984 What emission limits must I meet for tire production affected sources?

You must meet each emission limit in either option 1 or option 2 of Table 1 to this subpart that applies to you.

§ 63.5985 What are my alternatives for meeting the emission limits for tire production affected sources?

You must use one of the compliance alternatives in paragraphs (a) through (c) of this section to meet either of the emission limits in § 63.5984.

(a) *Purchase alternative.* Use only cements and solvents that, as purchased, contain no more HAP than allowed by the emission limits in Table 1 to this subpart, option 1 (HAP constituent option).

(b) *Monthly average alternative, without using an add-on control device.* Use cements and solvents in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 1 to this subpart, option 1 or option 2.

(c) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the emission limits in Table 1 to this subpart, option 1 or option 2.

Emission Limits for Tire Cord Production Affected Sources

§ 63.5986 What emission limits must I meet for tire cord production affected sources?

You must meet each emission limit in either option 1 or option 2 of Table 2 to this subpart that applies to you.

§ 63.5987 What are my alternatives for meeting the emission limits for tire cord production affected sources?

You must use one of the compliance alternatives in paragraph (a) or (b) of this section to meet the emission limits in § 63.5986.

(a) *Monthly average alternative, without using an add-on control device.* Use coatings in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart.

(b) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart.

Emission Limitations for Puncture Sealant Application Affected Sources

§ 63.5988 What emission limitations must I meet for puncture sealant application affected sources?

(a) You must meet each emission limit in either option 1 or option 2 of Table 3 to this subpart that applies to you.

(b) If you use an add-on control device to meet the emission limits in Table 3 to this subpart, you must also meet each operating limit in Table 4 to this subpart that applies to you.

§ 63.5989 What are my alternatives for meeting the emission limitations for puncture sealant application affected sources?

You must use one of the compliance alternatives in paragraphs (a) through (d) of this section to meet the emission limitations in § 63.5988.

(a) *Overall control efficiency alternative.* Use an emissions capture system and control device and demonstrate that the application booth emissions meet the emission limits in Table 3 to this subpart, option 1a or 1b, and the control device and capture system meet the operating limits in Table 4 to this subpart.

(b) *Permanent total enclosure and control device efficiency alternative.* Use a permanent total enclosure that satisfies the Method 204 criteria in 40 CFR part 51, appendix M. Demonstrate that the control device meets the emission limits in Table 3 to this subpart, option 1a or 1b. You must also show that the control device and capture system meet the operating limits in Table 4 to this subpart.

(c) *Monthly average alternative, without using an add-on control device.* Use puncture sealants in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2.

(d) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2.

General Compliance Requirements

§ 63.5990 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the applicable emission limitations specified in Tables 1 through 4 to this subpart at all times, except during periods of startup, shutdown, and malfunction if you are using a control device to comply with an emission limit.

(b) Except as provided in § 63.5982(b)(4), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) During the period between the compliance date specified for your source in § 63.5983 and the date upon which continuous compliance monitoring systems (CMS) have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emission control equipment.

(d) For each affected source that complies with the emission limits in Tables 1 through 3 to this subpart using a control device, you must develop a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3).

(e) For each monitoring system required in this section, you must develop and submit for approval a site-specific monitoring plan that addresses the requirements in paragraphs (e)(1) through (3) of this section as follows:

(1) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit so that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device);

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and

(3) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(f) In your site-specific monitoring plan, you must also address the ongoing procedures specified in paragraphs (f)(1) through (3) of this section as follows:

(1) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (3), (4)(ii), (7), and (8), and this section;

(2) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(3) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

[67 FR 45598, July 9, 2002, as amended at 71 FR 20466, Apr. 20, 2006]

General Testing and Initial Compliance Requirements

§ 63.5991 By what date must I conduct an initial compliance demonstration or performance test?

(a) If you have a new or reconstructed affected source, you must conduct each required initial compliance demonstration or performance test within 180 calendar days after the compliance date that is specified for your new or reconstructed affected source in § 63.5983(a). If you are required to conduct a performance test, you must do so according to the provisions of § 63.7(a)(2).

(b) If you have an existing affected source, you must conduct each required initial compliance demonstration or performance test no later than the compliance date that is specified for your existing affected source in § 63.5983(b). If you are required to conduct a performance test, you must do so according to the provisions of § 63.7(a)(2).

(c) If you commenced construction or reconstruction between October 18, 2000 and July 9, 2002, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than January 6, 2003, or within 180 calendar days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between October 18, 2000 and July 9, 2002, and you chose to comply with the proposed emission limitation when demonstrating initial compliance,

you must conduct a second compliance demonstration for the promulgated emission limitation no later than January 5, 2006, or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

§ 63.5992 When must I conduct subsequent performance tests?

If you use a control system (add-on control device and capture system) to meet the emission limitations, you must also conduct a performance test at least once every 5 years following your initial compliance demonstration to verify control system performance and reestablish operating parameters or operating limits for control systems used to comply with the emissions limits.

§ 63.5993 What performance tests and other procedures must I use?

(a) If you use a control system to meet the emission limitations, you must conduct each performance test in Table 5 to this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the specific conditions specified in Table 5 to this subpart.

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(1), unless otherwise specified in the test method. Each test run must last at least 1 hour.

(e) If you are complying with the emission limitations using a control system, you must also conduct performance tests according to the requirements in paragraphs (e)(1) through (3) of this section as they apply to you.

(1) *Determining capture efficiency of permanent or temporary total enclosure.* Determine the capture efficiency of a capture system by using one of the procedures in Table 5 to this subpart.

(2) *Determining capture efficiency of an alternative method.* As an alternative to constructing a permanent or temporary total enclosure, you may determine the capture efficiency using any capture efficiency protocol and test methods if the data satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach in appendix A to subpart KK of this part.

(3) *Determining efficiency of an add-on control device.* Use Table 5 to this subpart to select the test methods for determining the efficiency of an add-on control device.

Testing and Initial Compliance Requirements for Tire Production Affected Sources

§ 63.5994 How do I conduct tests and procedures for tire production affected sources?

(a) *Methods to determine the mass percent of HAP in cements and solvents.* To determine the HAP content in the cements and solvents used at your tire production affected source, use EPA Method 311 of appendix A of this part, an approved alternative method, or any other reasonable means for determining the HAP content of your cements and solvents. Other reasonable means include, but are not limited to: a material safety data sheet (MSDS), provided it contains appropriate information; a certified product data sheet (CPDS); or a manufacturer's hazardous air pollutant data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311

are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(b) *Methods to demonstrate compliance with the HAP constituent emission limits in Table 1 to this subpart (option 1).* Use the method in paragraph (b)(1) of this section to demonstrate initial and continuous compliance with the applicable emission limits for tire production affected sources using the compliance alternative described in § 63.5985(a), purchase alternative. Use the equations in paragraphs (b)(2) and (3) of this section to demonstrate initial and continuous compliance with the emission limits for tire production affected sources using the monthly average compliance alternatives described in § 63.5985(b) and (c).

(1) Determine the mass percent of each HAP in each cement and solvent according to the procedures in paragraph (a) of this section.

(2) Use Equation 1 of this section to calculate the HAP emission rate for each monthly operating period when complying by using cements and solvents without using an add-on control device so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart, option 1. Equation 1 follows:

$$E_{month} = \frac{\left(\sum_{i=1}^{n}(HAP_i)(TMASS_i)\right)(10^6)}{\sum_{i=1}^{n} TMASS_i} \qquad \text{(Eq. 1)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$ =total mass of cement and solvent i used in the month, grams.

n=number of cements and solvents used in the month.

(3) Use Equation 2 of this section to calculate the HAP emission rate for each monthly period when complying by using a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart (option 1). Equation 2 follows:

$$E_{month} = \frac{\left\{\sum_{i=1}^{n}(HAP_i)(TMASS_i) + \sum_{j=1}^{m}(HAP_j)(TMASS_j)\left(1-\frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TMASS_k)\right\}(10^6)}{\sum_{i=1}^{n} TMASS_i + \sum_{j=1}^{m} TMASS_j + \sum_{k=1}^{p} TMASS_k} \qquad \text{(Eq. 2)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$ =total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

n=number of cements and solvents used in the month in processes that are not routed to a control device.

HAP_j =mass percent, expressed as a decimal, of the specific HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$ =total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days, grams.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of cements and solvents used in the month that are routed to a control device during all operating days.

HAP_k =mass percent, expressed as a decimal, of the specific HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$ =total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(c) *Methods to demonstrate compliance with the production-based emission limits in Table 1 to this subpart, option 2.* Use the methods and equations in paragraphs (c)(1) through (6) of this section to demonstrate initial and continuous compliance with the production-based emission limits for tire production affected sources using the compliance alternatives described in § 63.5985(b) and (c).

(1) *Methods to determine the mass percent of each HAP in cements and solvents.* Determine the mass percent of all HAP in cements and solvents using the applicable methods specified in paragraph (a) of this section.

(2) *Quantity of rubber used.* Determine your quantity of rubber used (megagrams) by accounting for the total mass of mixed rubber compound that is delivered to the tire production operation.

(3) *Compliance without use of an add-on control device.* If you do not use an add-on control device to meet the emission limits, use Equation 3 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month (megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 to this subpart, option 2. Equation 3 follows:

$$E_{month} = \frac{\sum_{i=1}^{n}(HAP_i)(TMASS_i)}{RMASS} \quad \text{(Eq. 3.)}$$

Where:

E_{month} =mass of all HAP emitted per total mass of rubber used month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$ =total mass of cement and solvent i used in the month, grams.

n=number of cements and solvents used in the month.

RMASS=total mass of rubber used per month, megagrams.

(4) *Compliance with use of an add-on control device.* If you use a control device to meet the emission limits, use Equation 4 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month (megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 of this subpart, option 2. Equation 4 follows:

$$E_{month} = \frac{\sum_{i=1}^{n}(HAP_i)(TMASS_i) + \sum_{j=1}^{m}(HAP_j)(TMASS_j)\left(1 - \frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TMASS_k)}{RMASS} \quad \text{(Eq. 4)}$$

Where:

E_{month} =mass of all HAP emitted per total mass rubber used per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$ =total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

n=number of cements and solvents used in the month in processes that are not routed to a control device.

HAP_j =mass percent, expressed as a decimal, of all HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$ =total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of cements and solvents used in the month that are routed to a control device during all operating days.

HAP_k =mass percent, expressed as a decimal, of all HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating

days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$ =total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

RMASS=total mass of rubber used per month, megagrams.

(5) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(d) *Specific compliance demonstration requirements for tire production affected sources.* (1) Conduct any required compliance demonstration according to the requirements in § 63.5993.

(2) If you are demonstrating compliance with the HAP constituent option in Table 1 to this subpart, option 1, conduct the compliance demonstration using cements and solvents that are representative of cements and solvents typically used at your tire production affected source.

(3) Establish an operating range that corresponds to the control efficiency as described in Table 5 to this subpart.

(e) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equations 2 and 4 of this section for HAP emissions reduced using a control system, you must meet the requirements in paragraphs (e)(1) and (2) of this section.

(1) Monitor the established operating parameters as appropriate.

(i) If you use a thermal oxidizer, monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle.

(iii) If you use a control device other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to § 63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the natural draft openings (NDO) in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last compliance demonstration was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(2) Maintain the operating parameters within the operating range established during the compliance demonstration.

(f) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

[67 FR 45598, July 9, 2002, as amended at 68 FR 11747, Mar. 12, 2003]

§ 63.5995 What are my monitoring installation, operation, and maintenance requirements?

(a) For each operating parameter that you are required by § 63.5994(e)(1) to monitor, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the requirements in § 63.5990(e) and (f) and in paragraphs (a)(1) through (6) of this section.

(1) You must operate your CPMS at all times that the process is operating.

(2) You must collect data from at least four equally spaced periods each hour.

(3) For at least 75 percent of the hours in an operating day, you must have valid data (as defined in your site-specific monitoring plan) for at least four equally spaced periods each hour.

(4) For each hour that you have valid data from at least four equally spaced periods, you must calculate the hourly average value using all valid data.

(5) You must calculate the daily average using all of the hourly averages calculated according to paragraph (a)(3) of this section for the 24-hour period.

(6) You must record the results for each inspection, calibration, and validation check as specified in your site-specific monitoring plan.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a) and (b)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a non-cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If a chart recorder is used, it must have a sensitivity in the minor division of at least 20 degrees Fahrenheit.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed near the process temperature sensor must yield a reading within 16.7 degrees centigrade of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(c) For each integrating regeneration stream flow monitoring device associated with a carbon adsorber, you must meet the requirements in paragraphs (a) and (c)(1) and (2) of this section.

(1) Use a device that has an accuracy of ±10 percent or better.

(2) Use a device that is capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle.

(d) For any other control device, or for other capture systems, ensure that the CPMS is operated according to a monitoring plan submitted to the Administrator with the compliance status report required by § 63.9(h). The monitoring plan must meet the requirements in paragraphs (a) and (d)(1) through (3) of this section. Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(1) Identify the operating parameter to be monitored to ensure that the control or capture efficiency measured during the initial compliance test is maintained.

(2) Discuss why this parameter is appropriate for demonstrating ongoing compliance.

(3) Identify the specific monitoring procedures.

(e) For each pressure differential monitoring device, you must meet the requirements in paragraphs (a) and (e)(1) and (2) of this section.

(1) Conduct a quarterly EPA Method 2 procedure (found in 40 CFR part 60, appendix A) on the applicable NDOs and use the results to calibrate the pressure monitor if the difference in results are greater than 10 percent.

(2) Inspect the NDO monthly to ensure that their size has not changed, that there are no new NDO, and that no HAP sources have been moved closer to the NDO than when the last performance test was conducted.

§ 63.5996 How do I demonstrate initial compliance with the emission limits for tire production affected sources?

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 6 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6009(e).

Testing and Initial Compliance Requirements for Tire Cord Production Affected Sources

§ 63.5997 How do I conduct tests and procedures for tire cord production affected sources?

(a) *Methods to determine the mass percent of each HAP in coatings.* (1) To determine the HAP content in the coating used at your tire cord production affected source, use EPA Method 311 of appendix A of this part, an approved alternative method, or any other reasonable means for determining the HAP content of your coatings. Other reasonable means include, but are not limited to: an MSDS, provided it contains appropriate information; a CPDS; or a manufacturer's HAP data sheet. You are not required to

test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Unless you demonstrate otherwise, the HAP content analysis must be based on coatings prior to any cross-linking reactions, *i.e.,* curing. However, you may account for differences in HAP emissions resulting from chemical reactions based on the conversion rates of the individual coating formulations, chemistry demonstrations, or other demonstrations that are verifiable to the approving agency. Use the revised value in your compliance demonstration in the relevant equations in paragraph (b) of this section.

(b) *Methods to determine compliance with the emission limits in Table 2 to this subpart, option 1.* Use the equations in this paragraph (b) to demonstrate initial and continuous compliance with the emission limits for tire cord production sources using the compliance alternatives described in § 63.5987(a) and (b).

(1) *Determine mass percent of HAP.* Determine the mass percent of all HAP in each coating according to the procedures in paragraph (a) of this section.

(2) *Compliance without use of an add-on control device.* If you do not use an add-on control device to meet the emission limits, use Equation 1 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of fabric processed at the tire cord production source to show that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart, option 1. Equation 1 follows:

$$E_{month} = \frac{\sum_{i=1}^{n} (HAP_i)(TCOAT_i)}{TFAB} \quad \text{(Eq. 1)}$$

Where:

E_{month} =mass of all HAP emitted per total mass of fabric processed in the month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of all HAP in the coating i, prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section.

$TCOAT_i$ =total mass of coating i made and used for application to fabric at the facility in the month, grams.

n=number of coatings used in the month.

TFAB=total mass of fabric processed in the month, megagrams.

(3) *Compliance with use of an add-on control device.* If you use a control device to meet the emission limits, use Equation 2 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of fabric processed to show that the monthly average HAP emissions do not exceed the HAP emission limit in Table 2 of this subpart, option 1. Equation 2 follows:

$$E_{month} = \frac{\sum_{i=1}^{n} (HAP_i)(TCOAT_i) + \sum_{j=1}^{m} (HAP_j)(TCOAT_j)\left(1 - \frac{EFF}{100}\right) + \sum_{k=1}^{p} (HAP_k)(TCOAT_k)}{TFAB} \quad \text{(Eq. 2)}$$

Where:

E_{month} =mass of all HAP emitted per total mass of fabric processed in the month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of all HAP in coating i, prior to curing and including any application stations dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are not routed to a control device.

$TCOAT_i$ =total mass of coating i made and used for application to fabric at the facility in the month in processes that are not routed to a control device, grams.

n=number of coatings used in the month in processes that are not routed to a control device.

HAP_j =mass percent, expressed as a decimal, of all HAP in coating j, prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TCOAT_j$ =total mass of coating j made and used for application to fabric at the facility in the month in processes that are routed to a control device during all operating days, grams.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of coatings used in the month that are routed to a control device during all operating days.

HAP_k =mass percent, expressed as a decimal, of all HAP in coating k, prior to curing and including any application station dilution, for coatings used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TCOAT_k$ =total mass of coating k made and used for application to fabric at the facility in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of coatings used in the month that are routed to a control device during all non-control operating days.

TFAB=total mass of fabric processed in the month, megagrams.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(c) *Methods to determine compliance with the emission limits in table 2 of this subpart, option 2.* Use the equations in this paragraph (c) to demonstrate initial and continuous compliance with the emission limits for tire cord production sources using the compliance alternatives described in § 63.5987(a) and (b).

(1) Determine the mass percent of each HAP in each coating according to the procedures in paragraph (a) of this section.

(2) Use Equation 3 of this section to calculate the monthly average HAP emission rate when complying by using coatings without using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart, option 2. Equation 3 follows:

$$E_{month} = \frac{\left(\sum_{i=1}^{n}(HAP_i)(TCOAT_i)\right)(10^6)}{\sum_{i=1}^{n} TCOAT_i} \qquad \text{(Eq. 3)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass of coatings from all coatings made and used in tire cord fabric production per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in the coating i, prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section.

$TCOAT_i$ =total mass of coating i made and used for application to fabric at the facility in the month, grams.

n=number of coatings used in the month.

(3) Use Equation 4 of this section to calculate the monthly average HAP emission rate when complying by using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in table 2 to this subpart, option 2. Equation 4 follows:

$$E_{month} = \frac{\left\{\sum_{i=1}^{n}(HAP_i)(TCOAT_i) + \sum_{j=l}^{m}(HAP_j)(TCOAT_j)\left(1-\frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TMASS_k)\right\}(10^6)}{\sum_{i=1}^{n}TCOAT_i + \sum_{j=1}^{m}TCOAT_j + \sum_{k=1}^{p}TCOAT_k} \qquad \text{(Eq. 4)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass of coatings from all coatings made and used in tire cord fabric production per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in coating i, prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are not routed to a control device.

$TCOAT_i$ =total mass of coating i made and used for application to fabric at the facility in the month in processes that are not routed to a control device, grams.

n=number of coatings used in the month in processes that are not routed to a control device.

HAP_j =mass percent, expressed as a decimal, of the specific HAP in coating j, prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TCOAT_j$ =total mass of coating i made and used for application to fabric at the facility in the month in processes that are routed to a control device during all operating days, grams.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of coatings used in the month that are routed to a control device during all operating days.

HAP_k =mass percent, expressed as a decimal, of the specific HAP in coating k, prior to curing and including any application station dilution, for coatings used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TCOAT_k$ =total mass of coating i made and used for application to fabric at the facility in the month in processes that are routed to a control device during all non-control operating days, grams.

p = number of coatings used in the month that are routed to a control device during all non-control operating days.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(d) *Specific compliance demonstration requirements for tire cord production affected sources.* (1) Conduct any required compliance demonstrations according to the requirements in § 63.5993.

(2) Conduct the compliance demonstration using coatings with average mass percent HAP content that are representative of the coatings typically used at your tire cord production affected source.

(3) Establish an operating range that corresponds to the control efficiency as described in Table 5 to this subpart.

(e) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equations 2 and 4 of this section for HAP emissions reduced using a control system, you must meet the requirements in paragraphs (e)(1) and (2) of this section.

(1) Monitor the established operating parameters as appropriate.

(i) If you use a thermal oxidizer, continuously monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle and the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.

(iii) If you use a control device other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to § 63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the NDO in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last performance test was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(2) Maintain the operating parameter within the operating range established during the compliance demonstration.

(f) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

§ 63.5998 What are my monitoring installation, operation, and maintenance requirements?

For each operating parameter that you are required by § 63.5997(e)(1) to monitor, you must install, operate, and maintain a continuous parameter monitoring system according to the provisions in § 63.5995(a) through (e).

§ 63.5999 How do I demonstrate initial compliance with the emission limits for tire cord production affected sources?

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 7 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6009(e).

Testing and Initial Compliance Requirements for Puncture Sealant Application Affected Sources

§ 63.6000 How do I conduct tests and procedures for puncture sealant application affected sources?

(a) *Methods to determine compliance with the puncture sealant application emission limitations in Table 3 to this subpart.* Use the methods and equations in paragraph (b) of this section to demonstrate initial and continuous compliance with the overall control efficiency compliance alternatives described in § 63.5989(a) and (b). Use the methods and equations in paragraphs (c) through (g) of this section to demonstrate initial and continuous compliance with the HAP constituent compliance alternative described in § 63.5989(c) and (d).

(b) *Methods to determine compliance with the emission limits in Table 3 to this subpart, option 1.* Follow the test procedures described in § 63.5993 to determine the overall control efficiency of your system.

(1) You must also meet the requirements in paragraphs (b)(1)(i) and (ii) of this section.

(i) Conduct the performance test using a puncture sealant with an average mass percent HAP content that is representative of the puncture sealants typically used at your puncture sealant application affected source.

(ii) Establish all applicable operating limit ranges that correspond to the control system efficiency as described in Table 5 to this subpart.

(2) Use Equation 1 of this section to calculate the overall efficiency of the control system. If you have a permanent total enclosure that satisfies EPA Method 204 (found in 40 CFR part 51, appendix M) criteria, assume 100 percent capture efficiency for variable F. Equation 1 follows:

$$R = \frac{(F)(E)}{100} \qquad \text{(Eq. 1)}$$

Where:

R=overall control system efficiency, percent.

F=capture efficiency of the capture system on add-on control device, percent, determined during the performance test.

E=control efficiency of add-on control device k, percent, determined during the performance test.

(3) Monitor the established operating limits as appropriate.

(i) If you use a thermal oxidizer, monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle.

(iii) For each control device used other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to § 63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the NDO in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last performance test was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(vi) Maintain the operating parameter within the operating range established during the performance test.

(c) *Methods to determine the mass percent of each HAP in puncture sealants.* To determine the HAP content in the puncture sealant used at your puncture sealant application affected source, use EPA Method 311 of appendix A of 40 CFR part 63, an approved alternative method, or any other reasonable means for determining the HAP content of your puncture sealants. Other reasonable means include, but are not limited to: an MSDS, provided it contains appropriate information; a CPDS; or a manufacturer's hazardous air pollutant data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(d) *Methods to determine compliance with the emission limits in Table 3 to this subpart, option 2.* Use the equations in this paragraph (d) to demonstrate initial and continuous compliance with the HAP constituent emission limits for puncture sealant application affected sources using the compliance alternatives described in § 63.5989(c) and (d).

(1) Use Equation 2 of this section to calculate the monthly average HAP emission rate when complying by using puncture sealants without using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2. Equation 2 follows:

$$E_{month} = \frac{\left(\sum_{i=1}^{n}(HAP_i)(TPSEAL_i)\right)(10^6)}{\sum_{i=1}^{n} TPSEAL_i} \qquad \text{(Eq. 2)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass of puncture sealants from all puncture sealants used at the puncture sealant affected source per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in puncture sealant i, including any application booth dilution, determined in accordance with paragraph (c) of this section.

$TPSEAL_i$ =total mass of puncture sealant i used in the month, grams.

n=number of puncture sealants used in the month.

(2) Use Equation 3 of this section to calculate the monthly average HAP emission rate when complying by using puncture sealants by using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2. Equation 3 follows:

$$E_{month} = \frac{\left\{\sum_{i=1}^{n}(HAP_i)(TPSEAL_i) + \sum_{j=1}^{m}(HAP_j)(TPSEAL_j)\left(1-\frac{EFF}{100}\right) + \sum_{k=1}^{p}(HAP_k)(TPSEAL_k)\right\}(10^6)}{\sum_{i=1}^{n}TPSEAL_i + \sum_{j=1}^{m}TPSEAL_j + \sum_{k=1}^{p}TPSEAL_k} \qquad \text{(Eq. 3)}$$

Where:

E_{month} =mass of the specific HAP emitted per total mass of puncture sealants used at the puncture sealant affected source per month, grams per megagram.

HAP_i =mass percent, expressed as a decimal, of the specific HAP in puncture sealant i, including any application booth dilution, determined in accordance with paragraph (c) of this section for puncture sealants used in the month in processes that are not routed to a control device.

$TPSEAL_i$ =total mass of puncture sealant i used in the month in processes that are not routed to a control device, gram.

n=number of puncture sealants used in the month in processes that are not routed to a control device.

HAP_j =mass percent, expressed as a decimal, of the specific HAP, in puncture sealant j, including any application booth dilution, determined in accordance with paragraph (c) of this section, for puncture sealants used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TPSEAL_j$ =total mass of puncture sealant j used in the month in processes that are routed to a control device during all operating days, grams.

EFF=efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

m=number of puncture sealants used in the month that are routed to a control device during all operating days.

HAP_k =mass percent, expressed as a decimal, of the specific HAP, in puncture sealant k, including any application booth dilution, for puncture sealants used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TPSEAL_k$ =total mass of total mass of puncture sealant k used in the month in processes that are routed to a control device during all non-control operating days, grams.

p=number of puncture sealants used in the month that are routed to a control device during all non-control operating days.

(3) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(e) *Specific compliance demonstration requirements for puncture sealant application affected sources.* (1) Conduct any required compliance demonstrations according to the requirements in § 63.5993.

(2) Conduct the compliance demonstration using a puncture sealant with average mass percent HAP content that is representative of the puncture sealants typically used at your puncture sealant application affected source.

(3) Establish an operating range that corresponds to the appropriate control efficiency described in Table 5 to this subpart.

(f) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equation 3 of this section for HAP emissions reduced using a control system, you must monitor the established operating parameters as appropriate and meet the requirements in paragraph (b)(3) of this section.

(g) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

§ 63.6001 What are my monitoring installation, operation, and maintenance requirements?

For each operating limit that you are required by § 63.6000(b)(3) to monitor or each operating parameter that you are required by § 63.6000(f) to monitor, you must install, operate, and maintain a continuous parameter monitoring system according to the provisions in § 63.5995(a) through (e).

§ 63.6002 How do I demonstrate initial compliance with the emission limits for puncture sealant application affected sources?

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 8 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6009(e).

Continuous Compliance Requirements for Tire Production Affected Sources

§ 63.6003 How do I monitor and collect data to demonstrate continuous compliance with the emission limits for tire production affected sources?

(a) You must monitor and collect data as specified in Table 9 to this subpart.

(b) Except for periods of monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) while the affected source is operating. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(c) In data average calculations and calculations used to report emission or operating levels, you may not use data recorded during periods of monitoring malfunctions or associated repairs, or recorded during required quality assurance or control activities. Such data may not be used in fulfilling any

applicable minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.6004 How do I demonstrate continuous compliance with the emission limits for tire production affected sources?

(a) You must demonstrate continuous compliance with each applicable limit in Table 1 to this subpart using the methods specified in Table 10 to this subpart.

(b) You must report each instance in which you did not meet an emission limit in Table 1 to this subpart. You must also report each instance in which you did not meet the applicable requirements in Table 10 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in § 63.6010(e).

(c) You also must meet the following requirements if you are complying with the purchase alternative for tire production sources described in § 63.5985(a):

(1) If, after you submit the Notification of Compliance Status, you use a cement or solvent for which you have not previously verified percent HAP mass using the methods in § 63.5994(a), you must verify that each cement and solvent used in the affected source meets the emission limit, using any of the methods in § 63.5994(a).

(2) You must update the list of all the cements and solvents used at the affected source.

(3) With the compliance report for the reporting period during which you used the new cement or solvent, you must submit the updated list of all cements and solvents and a statement certifying that, as purchased, each cement and solvent used at the affected source during the reporting period met the emission limits in table 1 to this subpart.

Continuous Compliance Requirements for Tire Cord Production Affected Sources

§ 63.6005 How do I monitor and collect data to demonstrate continuous compliance with the emission limits for tire cord production affected sources?

(a) You must monitor and collect data to demonstrate continuous compliance with the emission limits for tire cord production affected sources as specified in table 11 to this subpart.

(b) You must monitor and collect data according to the requirements in § 63.6003(b) and (c).

§ 63.6006 How do I demonstrate continuous compliance with the emission limits for tire cord production affected sources?

(a) You must demonstrate continuous compliance with each applicable emission limit in table 2 to this subpart using the methods specified in table 12 to this subpart.

(b) You must report each instance in which you did not meet an applicable emission limit in table 2 to this subpart. You must also report each instance in which you did not meet the applicable requirements in table 12 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in § 63.6010(e).

Continuous Compliance Requirements for Puncture Sealant Application Affected Sources

§ 63.6007 How do I monitor and collect data to demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources?

(a) You must monitor and collect data to demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources as specified in table 13 to this subpart.

(b) You must monitor and collect data according to the requirements in § 63.6003(b) and (c).

§ 63.6008 How do I demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources?

(a) You must demonstrate continuous compliance with each applicable emission limitation in tables 3 and 4 to this subpart using the methods specified in Table 14 to this subpart.

(b) You must report each instance in which you did not meet an applicable emission limit in table 3 to this subpart. You must also report each instance in which you did not meet the applicable requirements in table 14 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in § 63.6010(e).

Notifications, Reports, and Records

§ 63.6009 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7 (b) and (c), 63.8(f) (4) and (6), and 63.9 (b) through (e) and (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before July 9, 2002, you must submit an Initial Notification not later than November 6, 2002.

(c) As specified in § 63.9(b)(3), if you startup your new or reconstructed affected source on or after July 9, 2002, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in tables 5 through 8 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). The Notification must contain the information listed in table 15 to this subpart for compliance reports. The Notification of Compliance Status must be submitted according to the following schedules, as appropriate:

(1) For each initial compliance demonstration required in tables 6 through 8 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 calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in tables 6 through 8 to this subpart that includes a performance test conducted according to the requirements in table 5 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

(f) For each tire production affected source, the Notification of Compliance Status must also identify the emission limit option in § 63.5984 and the compliance alternative in § 63.5985 that you have chosen to meet.

(g) For each tire production affected source complying with the purchase compliance alternative in § 63.5985(a), the Notification of Compliance Status must also include the information listed in paragraphs (g)(1) and (2) of this section.

(1) A list of each cement and solvent, as purchased, that is used at the affected source and the manufacturer or supplier of each.

(2) The individual HAP content (percent by mass) of each cement and solvent that is used.

(h) For each tire production or tire cord production affected source using a control device, the Notification of Compliance Status must also include the information in paragraphs (h) (1) and (2) of this section for each operating parameter in §§ 63.5994(e)(1) and 63.5997(e)(1) that applies to you.

(1) The operating parameter value averaged over the full period of the performance test (e.g., average secondary chamber firebox temperature over the period of the performance test was 1,500 degrees Fahrenheit).

(2) The operating parameter range within which HAP emissions are reduced to the level corresponding to meeting the applicable emission limits in tables 1 and 2 to this subpart.

(i) For each puncture sealant application affected source using a control device, the Notification of Compliance Status must include the information in paragraphs (i)(1) and (2) of this section for each operating limit in § 63.6000(b)(3) and each operating parameter in § 63.6000(f).

(1) The operating limit or operating parameter value averaged over the full period of the performance test.

(2) The operating limit or operating parameter range within which HAP emissions are reduced to the levels corresponding to meeting the applicable emission limitations in table 3 to this subpart.

(j) For each tire cord production affected source required to assess the predominant use for coating web substrates as required by § 63.5981(b), you must submit a notice of the results of the reassessment within 30 days of completing the reassessment. The notice shall specify whether this subpart XXXX is still the applicable subpart and, if it is not, which part 63 subpart is applicable.

§ 63.6010 What reports must I submit and when?

(a) You must submit each applicable report in table 15 to this subpart.

(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 15 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.5983 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 § 63.5983.

(2) 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 § 63.5983.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting subparts pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain information specified in paragraphs (c)(1) through (10) 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 startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there are no deviations from any emission limitations (emission limit or operating limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the operating parameter monitoring systems were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the operating parameter monitoring systems or CPMS were out-of-control during the reporting period.

(7) For each tire production affected source, the emission limit option in § 63.5984 and the compliance alternative in § 63.5985 that you have chosen to meet.

(8) For each tire production affected source complying with the purchase compliance alternative in § 63.5985(a), and for each annual reporting period during which you use a cement and solvent that, as purchased, was not included in the list submitted with the Notification of Compliance Status in § 63.6009(g), an updated list of all cements and solvents used, as purchased, at the affected source. You must also include a statement certifying that each cement and solvent, as purchased, that was used at the affected source during the reporting period met the HAP constituent limits (option 1) in table 1 to this subpart.

(9) For each tire cord production affected source, the emission limit option in § 63.5986 and the compliance alternative in § 63.5987 that you have chosen to meet.

(10) For each puncture sealant application affected source, the emission limit option in § 63.5988 and the compliance alternative in § 63.5989 that you have chosen to meet.

(d) For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where you are not using a CPMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) and the corrective action taken.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 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 10 to 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) which includes all required information concerning deviations from any emission limitation (including any operating limit) or work practice requirement 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.

(f) Upon notification to the Administrator that a tire production affected source has eliminated or reformulated cement and solvent so that the source can demonstrate compliance using the purchase alternative in § 63.5985(a), future compliance reports for this affected source may be submitted annually.

(g) If acceptable to both the Administrator and you, you may submit reports and notifications electronically.

§ 63.6011 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests as required in § 63.10(b)(2)(viii).

(3) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(b) For each tire production affected source, you must keep the records specified in Table 9 to this subpart to show continuous compliance with each emission limit that applies to you.

(c) For each tire cord production affected source, you must keep the records specified in Table 11 to this subpart to show continuous compliance with each emission limit that applies to you.

(d) For each puncture sealant application affected source, you must keep the records specified in Table 13 to this subpart to show continuous compliance with each emission limit that applies to you.

§ 63.6012 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 on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.6013 What parts of the General Provisions apply to me?

Table 17 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.6014 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§ 63.5981 through 63.5984, 63.5986, and 63.5988.

(2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.6015 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act and in § 63.2, the General Provisions. The following are additional definitions of terms used in this subpart:

As purchased means the condition of a cement and solvent as delivered to the facility, prior to any mixing, blending, or dilution.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that conveys these emissions to a control device.

Cements and solvents means the collection of all organic chemicals, mixtures of chemicals, and compounds used in the production of rubber tires, including cements, solvents, and mixtures used as process aids. Cements and solvents include, but are not limited to, tread end cements, undertread cements, bead cements, tire building cements and solvents, green tire spray, blemish repair paints, side wall protective paints, marking inks, materials used to clean process equipment, and slab dip mixtures. Cements and solvents do not include coatings or process aids used in tire cord production, puncture sealant application, rubber processing, or materials used to construct, repair, or maintain process equipment, or chemicals and compounds that are not used in the tire production process such as materials used in routine janitorial or facility grounds maintenance, office supplies (*e.g.,* dry-erase markers, correction fluid), architectural paint, or any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution to and use by the general public.

Coating means a compound or mixture of compounds that is applied to a fabric substrate in the tire cord production operation that allows the fabric to be prepared (*e.g.,* by heating, setting, curing) for incorporation into a rubber tire.

Components of rubber tires means any piece or part used in the manufacture of rubber tires that becomes an integral portion of the rubber tire when manufacture is complete and includes mixed rubber compounds, sidewalls, tread, tire beads, and liners. Other components often associated with rubber tires such as wheels, valve stems, tire bladders and inner tubes are not considered components of rubber tires for the purposes of these standards. Tire cord and puncture sealant, although components of rubber tires, are considered as separate affected sources in these standards and are defined separately.

Control device means a combustion device, recovery device, recapture device, or any combination of these devices used for recovering or oxidizing organic hazardous air pollutant vapors. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators (oxidizers), flares, boilers, and process heaters.

Control system efficiency means the percent of total volatile organic compound emissions, as measured by EPA Method 25 or 25A (40 CFR part 60, appendix A), recovered or destroyed by a control device multiplied by the percent of total volatile organic compound emissions, as measured by Method 25 or 25A, that are captured and conveyed to the control device.

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 (including any operating limit) 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 emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or visible emission limit.

Fabric processed means the amount of fabric coated and finished for use in subsequent product manufacturing.

Mixed rubber compound means the material, commonly referred to as rubber, from which rubber tires and components of rubber tires are manufactured. For the purposes of this definition, mixed rubber compound refers to the compound that leaves the rubber mixing process (*e.g.,* banburys) and is then processed into components from which rubber tires are manufactured.

Monthly operating period means the period in the Notification of Compliance Status report comprised of the number of operating days in the month.

Operating day means the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or a portion of a 24-hour period.

Process aid means a solvent, mixture, or cement used to facilitate or assist in tire component identification; component storage; tire building; tire curing; and tire repair, finishing, and identification.

Puncture sealant means a mixture that may include, but is not limited to, solvent constituents, mixed rubber compound, and process oil that is applied to the inner liner of a finished tire for the purpose of sealing any future hole which might occur in the tread when an object penetrates the tire.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rubber means the sum of the materials (for example, natural rubber, synthetic rubber, carbon black, oils, sulfur) that are combined in specific formulations for the sole purpose of making rubber tires or components of rubber tires.

Rubber mixing means the physical process of combining materials for use in rubber tire manufacturing to make mixed rubber compound using the collection of banburys and associated drop mills.

Rubber tire means a continuous solid or pneumatic cushion typically encircling a wheel and usually consisting, when pneumatic, of an external rubber covering.

Rubber used means the total mass of mixed rubber compound delivered to the tire production operations in a tire manufacturing facility (*e.g.,* the collection of warm-up mills, extruders, calendars, tire building, or other tire component and tire manufacturing equipment).

Tire cord means any fabric (*e.g.,* polyester, cotton) that is treated with a coating mixture that allows the fabric to more readily accept impregnation with rubber to become an integral part of a rubber tire.

[67 FR 45598, July 9, 2002, as amended at 68 FR 11747, Mar. 12, 2003]

Table 1 to Subpart XXXX of Part 63—Emission Limits for Tire Production Affected Sources

As stated in § 63.5984, you must comply with the emission limits for each new, reconstructed, or existing tire production affected source in the following table:

For each . . .	You must meet the following emission limits.
1. Option 1—HAP constituent option	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total cements and solvents used at the tire production affected source, and b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total cements and solvents used at the tire production affected source.
2. Option 2—production-based option	Emissions of HAP must not exceed 0.024 grams per megagram (0.00005 pounds per ton) of rubber used at the tire production affected source.

Table 2 to Subpart XXXX of Part 63—Emission Limits for Tire Cord Production Affected Sources

As stated in § 63.5986, you must comply with the emission limits for tire cord production affected sources in the following table:

For each . . .	You must meet the following emission limits.
1. Option 1.a (production-based option)—Existing tire cord production affected source	Emissions must not exceed 280 grams HAP per megagram (0.56 pounds per ton) of fabric processed at the tire cord production affected source.
2. Option 1.b (production-based option)—New or reconstructed tire cord production affected source	Emissions must not exceed 220 grams HAP per megagram (0.43 pounds per ton) of fabric processed at the tire cord production affected source.
3. Option 2 (HAP constituent option)—Existing, new or reconstructed tire cord production affected source	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total coatings used at the tire cord production affected source, and b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total coatings used at the tire cord production affected source.

Table 3 to Subpart XXXX of Part 63—Emission Limits for Puncture Sealant Application Affected Sources

As stated in § 63.5988(a), you must comply with the emission limits for puncture sealant application affected sources in the following table:

For each . . .	You must meet the following emission limit.
1. Option 1.a (percent reduction option)—Existing puncture sealant application spray booth	Reduce spray booth HAP (measured as volatile organic compounds (VOC)) emissions by at least 86 percent by weight.
2. Option 1.b (percent reduction option)—New or reconstructed puncture sealant application spray booth	Reduce spray booth HAP (measured as VOC) emissions by at least 95 percent by weight.
3. Option 2 (HAP constituent option) Existing, new or reconstructed puncture sealant application spray booth	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total puncture sealants used at the puncture sealant affected source, and

	b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total puncture sealants used at the puncture sealant affected source.

Table 4 to Subpart XXXX of Part 63—Operating Limits for Puncture Sealant Application Control Devices

As stated in § 63.5988(b), you must comply with the operating limits for puncture sealant application affected sources in the following table unless you are meeting Option 2 (HAP constituent option) limits in Table 3 to this subpart:

For each . . .	You must . . .
1. Thermal oxidizer to which puncture sealant application spray booth emissions are ducted	Maintain the daily average firebox secondary chamber temperature within the operating range established during the performance test.
2. Carbon adsorber (regenerative) to which puncture sealant application spray booth emissions are ducted	a. Maintain the total regeneration mass, volumetric flow, and carbon bed temperature at the operating range established during the performance test. b. Reestablish the carbon bed temperature to the levels established during the performance test within 15 minutes of each cooling cycle.
3. Other type of control device to which puncture sealant application spray booth emissions are ducted	Maintain your operating parameter(s) within the range(s) established during the performance test and according to your monitoring plan.
4. Permanent total enclosure capture system	a. Maintain the face velocity across any NDO at least at the levels established during the performance test. b. Maintain the size of NDO, the number of NDO, and their proximity to HAP emission sources consistent with the parameters established during the performance test.
5. Other capture system	Maintain the operating parameters within the range(s) established during the performance test and according to your monitoring plan.

Table 5 to Subpart XXXX of Part 63—Requirements for Performance Tests

As stated in § 63.5993, you must comply with the requirements for performance tests in the following table:

If you are using . . .	You must . . .	Using . . .	According to the following requirements . . .
1. A thermal oxidizer	a. Measure total HAP emissions, determine destruction efficiency of the control device, and establish a site-specific firebox secondary chamber temperature limit at which the emission limit that applies to the affected source is achieved	i. Method 25 or 25A performance test and data from the temperature monitoring system	(1). Measure total HAP emissions and determine the destruction efficiency of the control device using Method 25 (40 CFR part 60, appendix A). You may use Method 25A (40 CFR part 60, appendix A) if: an exhaust gas volatile organic matter concentration of 50 parts per million (ppmv) or less is required to comply with the standard; the volatile organic matter concentration at the inlet to the control system and the required level of control are such that exhaust volatile organic matter concentrations are 50 ppmv or less; or because of the high efficiency of the control device exhaust, is 50 ppmv or less, regardless of the inlet concentration. (2). Collect firebox secondary chamber temperature data every 15 minutes during the entire period of the initial 3-hour performance test, and determine the average firebox temperature over the 3-hour performance test by computing the average of all of the 15-minute reading.
2. A carbon adsorber (regenerative)	a. Measure total organic HAP emissions, establish the total regeneration mass or volumetric flow, and establish the temperature of the carbon bed within 15 minutes of completing any cooling cycles. The total regeneration mass, volumetric flow, and carbon bed temperature must be those at which the emission limit that applies to the affected source is achieved	i. Method 25 or Method 25A performance test and data from the carbon bed temperature monitoring device	(1). Measure total HAP emissions using Method 25. You may use Method 25A, if an exhaust gas volatile organic matter concentration of 50 ppmv or less; or because of the high efficiency of the control device, exhaust is 50 ppmv or less is required to comply with the standard; the volatile organic matter concentration (VOMC) at the inlet to the control system and the required level of control are such that exhaust VOMCs are 50 ppmv or less; or because of the high efficiency of the control device, exhaust is 50 ppmv or less, regardless of the inlet concentration. (2). Collect carbon bed total regeneration mass or volumetric

			flow for each carbon bed regeneration cycle during the performance test. (3). Record the maximum carbon bed temperature data for each carbon bed regeneration cycle during the performance test. (4). Record the carbon bed temperature within 15 minutes of each cooling cycle during the performance test. (5). Determine the average total regeneration mass or the volumetric flow over the 3-hour performance test by computing the average of all of the readings. (6). Determine the average maximum carbon bed temperature over the 3-hour performance test by computing the average of all of the readings. (7). Determine the average carbon bed temperature within 15 minutes of the cooling cycle over the 3-hour performance test.
3. Any control device other than a thermal oxidizer or carbon adsorber	Determine control device efficiency and establish operating parameter limits with which you will demonstrate continuous compliance with the emission limit that applies to the affected source	EPA-approved methods and data from the continuous parameter monitoring system	Conduct the performance test according to the site-specific plan submitted according to § 63.7(c)(2)(i).
4. All control devices	a. Select sampling ports' location and the number of traverse ports	Method 1 or 1A of 40 CFR part 60, appendix A	Locate sampling sites at the inlet and outlet of the control device and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A	
	c. Conduct gas analysis	Method 3, 3A, or 3B of 40 CFR part 60 appendix A	
	d. Measure moisture content of the stack gas	Method 4 of 40 CFR part 60, appendix A	
5. A permenent total enclosure (PTE)	Measure the face velocity across natural draft openings and document the design features of the enclosure	Method 204 of CFR part 51, appendix M	Capture efficiency is assumed to be 100 percent if the criteria are met

6. Temporary total enclosure (TTE)	Construct a temporarily installed enclosure that allows you to determine the efficiency of your capture system and establish operating parameter limits	Method 204 and the appropriate combination of Methods 204A-204F of 40 CFR part 51, appendix M	

Table 6 to Subpart XXXX of Part 63—Initial Compliance With the Emission Limits for Tire Production Affected Sources

As stated in § 63.5996, you must show initial compliance with the emission limits for tire production affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the purchase compliance alternative in § 63.5985(a)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate for each monthly period that no cements and solvents were purchased and used at the affected source containing HAP in amounts above the composition limits in Table 1 to this subpart, option 1, determined according to the procedures in § 63.5994(a) and (b)(1).
2. Sources complying with the monthly average compliance alternative without using a control device in § 63.5985(b)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in § 63.5994(a) and (b)(2).
3. Sources complying with the monthly average compliance alternative using a control device in § 63.5985(c)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in § 63.5994(a), (b)(3) and (4), and (d) through (f).
4. Sources complying with the monthly average compliance alternative without use of a control device in § 63.5985(b)	The production-based option in Table 1 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in § 63.5994(c)(1) through (3).
5. Sources complying with the monthly average compliance alternative using a control device in § 63.5985(c)	The production-based option in Table 1 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in § 63.5994(c)(1) and (2), (4) and (5), and (d) through (f).

Table 7 to Subpart XXXX of Part 63—Initial Compliance With the Emission Limits for Tire Cord Production Affected Sources

As stated in § 63.5999, you must show initial compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the monthly average alternative without using an add-on control device according to § 63.5987(a)	The production-based option in Table 2 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the procedures in § 63.5997(a), (b)(1) and (2).
2. Sources complying with the monthly average alternative using an add-on control device according to § 63.5987(b)	The production-based option in Table 2 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the procedures in § 63.5997(a), (b)(1) and (3) through (4), and (d) through (f).
3. Sources complying with the monthly average alternative without using an add-on control device according to § 63.5987(a)	The HAP constituent option in Table 2 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in § 63.5997(a) and (c)(1) and (2).
4. Sources complying with the monthly average alternative using an add-on control device according to § 63.5987(b)	The HAP constituent option in Table 2 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in § 63.5997(c)(1) and (3) through (4), and (d) through (f).

Table 8 to Subpart XXXX of Part 63—Initial Compliance With the Emission

As stated in § 63.6002, you must show initial compliance with the emission limits for puncture sealant application affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the overall control efficiency alternative in § 63.5989(a)	The percent reduction option in Table 3 to this subpart, option 1	You demonstrate that you conducted the performance tests, determined the overall efficiency of your control system, demonstrated that the applicable limits in Table 3 to this subpart, option 1, have been achieved, and established the operating limits in Table 4 of this subpart for your equipment according to the applicable procedures in § 63.6000(b).
2. Sources complying with the permanent	The percent reduction option in Table 3 to this subpart, option 1	You demonstrate that you conducted the performance tests, determined the individual

total enclosure and control device efficiency alternative in § 63.5989(b)		efficiencies of your capture and control systems, demonstrated that the applicable limits in Table 3 to this subpart, option 1, have been achieved, and established the operating limits in Table 4 of this subpart for your equipment according to the applicable procedures in § 63.6000(b).
3. Sources complying with the monthly average alternative in § 63.5989(c) without using an add-on control device	The HAP constituent option in Table 3 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in § 63.6000(c) and (d)(1).
4. Sources complying with the HAP constituent alternative in § 63.5989(d) by using an add-on control device	The HAP constituent option in Table 3 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in § 63.6000(c), (d)(2) and (3), and (e) through (f).

Table 9 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limits for Tire Production Affected Sources

As stated in § 63.6003, you must maintain minimum data to show continuous compliance with the emission limits for tire production affected sources according to the following table:

For . . .	You must maintain . . .
1. Sources complying with purchase compliance alternative in § 63.5985(a) that are meeting the HAP constituent emission limit (option 1) in Table 1 to this subpart	a. A list of each cement and solvent as purchased and the manufacturer or supplier of each. b. A record of Method 311 (40 CFR part 60, appendix A), or approved alternative method, test results indicating the mass percent of each HAP for each cement and solvent as purchased.
2. Sources complying with the monthly average compliance alternative without using a control device according to § 63.5985(b) that are meeting emission limits in Table 1 to this subpart	a. A record of Method 311, or approved alternative method, test results, indicating the mass percent of each HAP for each cement and solvent, as purchased. b. The mass of each cement and solvent used each monthly operating period. c. The total mass of rubber used each monthly operating period (if complying with the production-based emission limit, option 2, in Table 1 to this subpart). d. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period. e. Monthly averages of emissions in the appropriate emission limit format.
3. Sources complying with the monthly average	a. The same information as sources complying with

compliance alternative using a control device according to § 63.5985(c) that are meeting emission limits in Table 1 to this subpart	the monthly average alternative without using a control device. b. Records of operating parameter values for each operating parameter that applies to you.

Table 10 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limits for Tire Production Affected Sources

As stated in § 63.6004, you must show continuous compliance with the emission limits for tire production affected sources according to the following table:

For . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Sources complying with purchase compliance alternative in § 63.5985(a)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating for each monthly period that no cements and solvents were purchased and used at the affected source containing HAP in amounts above the composition limits in Table 1 to this subpart, option 1, determined according to the procedures in § 63.5994(a) and (b)(1).
2. Sources complying with the monthly average compliance alternative without using a control device according to § 63.5985(b)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in § 63.5994(a) and (b)(2).
3. Sources complying with the monthly average compliance alternative using a control device according to § 63.5985(c)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in § 63.5994(a), (b)(3) and (4), and (d) through (f).
4. Sources complying with the monthly average compliance alternative without using a control device according to § 63.5985(b)	The production-based option in Table 1 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in § 63.5994(c)(1) through (3).
5. Sources complying with the monthly average compliance alternative using a control device according to § 63.5985(c)	The production-based option in Table 1 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in § 63.5994(c)(1) and (2), (4) and (5), and (d) through (f).

Table 11 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limits for Tire Cord Production Affected Sources

As stated in § 63.6005, you must maintain minimum data to show continuous compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	You must maintain . . .
1. Sources complying with the monthly average alternative without using an add-on control device according to § 63.5987(a) that are meeting emission limits in Table 2 to this subpart	a. A record of Method 311 (40 CFR part 63, appendix A), or approved alternative method, test results, indicating the mass percent of each HAP for coating used. b. The mass of each coating used each monthly operating period. c. The total mass of fabric processed each monthly operating period (if complying with the production-based option in Table 2 to this subpart, option 1). d. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period. e. Monthly averages of emissions in the appropriate emission emission limit format.
2. Sources complying with the monthly average alternative using an add-on control device according to § 63.5987(b) that are meeting emission limits in Table 2 to this subpart	a. The same information as sources complying with the monthly average alternative without using a control device. b. Records of operating parameter values for each operating parameter that applies to you.

Table 12 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limits for Tire Cord Production Affected Sources

As stated in § 63.6006, you must show continuous compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Sources complying with the monthly average compliance alternative without using an add-on control device according to § 63.5987(a)	In Table 2 to this subpart	a. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the applicable procedures in § 63.5997(a) and (b)(1) and (2). b. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in § 63.5997(a) and (c)(1) and (2).
2. Sources complying with the monthly average compliance alternative using an add-on control device according to	In Table 2 to this subpart	a. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the applicable procedures in

§ 63.5987(b)		§ 63.5997(a), (b)(1) and (3) through (4), and (d) through (f). b. Demonstrating that the monthly HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in § 63.5997(c)(1) and (3) through (4), and (d) through (f).

Table 13 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limitations for Puncture Sealant Application Affected Sources

As stated in § 63.6007, you must maintain minimum data to show continuous compliance with the emission limitations for puncture sealant application affected sources according to the following table:

For . . .	You must maintain . . .
1. Sources complying with the control efficiency alternatives in § 63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a thermal oxidizer to reduce HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the secondary chamber firebox temperature for 100 percent of the hours during which the process was operated.
2. Sources complying with the control efficiency alternatives in § 63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a carbon adsorber to reduce HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the total regeneration stream mass or volumetric flow for each regeneration cycle for 100 percent of the hours during which the process was operated, and a record of the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle for 100 percent of the hours during which the process was operated.
3. Sources complying with the control efficiency alternatives in § 63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using any other type of control device to which puncture sealant application spray booth HAP emissions are ducted so that they do not exceed the operating limits in Table 4 to this subpart	Records of operating parameter values for each operating parameter that applies to you.
4. Sources complying with the permanent total enclosure compliance alternative in § 63.5989(b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a permanent total enclosure capture system to capture HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the face velocity across any NDO, the size of NDO, the number of NDO, and their proximity to HAP emission sources.
5. Sources complying with the overall control efficiency alternative in § 63.5989(a) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using any other capture system to capture HAP emissions so that they do not exceed the operating limits in Table 4 to	Records of operating parameter values for each operating parameter that applies to you.

this subpart	
6. Sources complying with the monthly average alternative without using an add-on control device according to § 63.5988(a) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	a. A record of Method 311 (40 CFR part 63, appendix A), or approved alternative method, test results, indicating the mass percent of each HAP for puncture sealant used. b. The mass of each puncture sealant used each monthly operating period. c. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period. d. Monthly averages of emissions in the appropriate emission limit format.
7. Sources complying with the monthly average alternative using an add-on control device according to § 63.5988(a) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	a. The same information as sources complying with the monthly average alternative that are not using a control device. b. Records of operating parameter values for each operating parameter that applies to you.

Table 14 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limitations for Puncture Sealant Application Affected Sources

As stated in § 63.6008, you must show continuous compliance with the emission limitations for puncture sealant application affected sources according to the following table:

For . . .	You must demonstrate continuous compliance by . . .
1. Each carbon adsorber used to comply with the operating limits in Table 4 to this subpart	a. Monitoring and recording every 15 minutes the total regeneration stream mass or volumetric flow, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle, and b. Maintaining the total regeneration stream mass or volumetric flow, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle within the operating levels established during your performance test.
2. Each thermal oxidizer used to comply with operating limits in Table 4 to this subpart	a. Continuously monitoring and recording the firebox temperature every 15 minutes, and b. Maintaining the daily average firebox temperature within the operating level established during your performance test.
3. Other “add-on” control or capture system hardware used to comply with the operating limits in Table 4 to this subpart	Continuously monitoring and recording specified parameters identified through compliance testing and identified in the Notification of Compliance Status report.
4. Sources complying with the monthly average compliance alternative without using an add-on control device according to § 63.5989(c) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in § 63.6000(c) and (d)(1).
5. Sources complying with the monthly average compliance alternative by using an add-on	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP

control device according to § 63.5989(d) that are the HAP constituent emission limits in Table 3 to this subpart, option 2	constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in § 63.6000(c), (d)(2) and (3), and (e) through (g).

Table 15 to Subpart XXXX of Part 63—Requirements for Reports

As stated in § 63.6010, you must submit each report that applies to you according to the following table:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CPMS was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period	Semiannually according to the requirements in § 63.6010(b), unless you meet the requirements for annual reporting in § 63.6010(f).
	b. If you have a deviation from any emission limitation during the reporting period at an affected source where you are not using a CPMS, the report must contain the information in § 63.6010(d). If the deviation occurred at a source where you are using a CMPS or if there were periods during which the CPMS were out-of-control as specified in § 63.8(c)(7), the report must contain the information required by § 63.5990(f)(3)	Semiannually according to the requirements in § 63.6010(b), unless you meet the requirements for annual reporting in § 63.6010(f).
	c. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)	Semiannually according to the requirements in § 63.6010(b), unless you meet the requirements for annual reporting in § 63.6010(f).
2. Immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan.	a. Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in § 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§ 63.10(d)(5)(ii)).

Table 16 to Subpart XXXX of Part 63—Selected Hazardous Air Pollutants

You must use the information listed in the following table to determine which emission limit in the HAP constituent options in Tables 1 through 3 to this subpart is applicable to you:

CAS No.	Selected hazardous air pollutants
50000	Formaldehyde
51796	Ethyl carbamate (Urethane)
53963	2-Acetylaminofluorene
56235	Carbon tetrachloride
57147	1,1-Dimethyl hydrazine
57578	beta-Propiolactone
58899	Lindane (all isomers)
59892	N-Nitrosomorpholine
60117	Dimethyl aminoazobenzene
62759	N-Nitrosodimethylamine
64675	Diethyl sulfate
67663	Chloroform
67721	Hexachloroethane
71432	Benzene (including benzene from gasoline)
75014	Vinyl chloride
75070	Acetaldehyde
75092	Methylene chloride (Dichloromethane)
75218	Ethylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
75569	Propylene oxide
77781	Dimethyl sulfate
79061	Acrylamide
79447	Dimethyl carbamoyl chloride
79469	2-Nitropropane
88062	2,4,6-Trichlorophenol
91941	3,3-Dichlorobenzidene
92671	4-Aminobiphenyl
92875	Benzidine
95534	o-Toluidine

95807	2,4-Toluene diamine
96128	1,2-Dibromo-3-chloropropane
96457	Ethylene thiourea
98077	Benzotrichloride
101144	4,4-Methylene bis(2-chloroaniline)
101779	4,4-Methylenedianiline
106467	1,4-Dichlorobenzene(p)
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106934	Ethylene dibromide (Dibromoethane)
106990	1,3-Butadiene
107062	Ethylene dichloride (1,2-Dichloroethane)
107131	Acrylonitrile
107302	Chloromethyl methyl ether
117817	Bis(2-ethylhexyl)phthalate (DEHP)
118741	Hexachlorobenzene
119904	3,3-Dimethoxybenzidine
119937	3,3-Dimethyl benzidine
122667	1,2-Diphenylhydrazine
123911	1,4-Dioxane (1,4-Diethyleneoxide)
127184	Tetrachloroethylene (Perchloroethylene)
140885	Ethyl acrylate
302012	Hydrazine
542756	1,3-Dichloropropene
542881	Bis(chloromethyl)ether
680319	Hexamethylphosphoramide
684935	N-Nitroso-N-methylurea
1120714	1,3-Propane sultone
1332214	Asbestos
1336363	Polychlorinated biphenyls (Aroclors)
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
8001352	Toxaphene (chlorinated camphene)
	Arsenic Compounds
	Chromium Compounds
	Coke Oven Emissions

Table 17 to Subpart XXXX of Part 63—Applicability of General Provisions to This Subpart XXXX

As stated in § 63.6013, you must comply with the applicable General Provisions (GP) requirements according to the following table:

Citation	Subject	Brief description of applicable sections	Applicable to Subpart XXXX?	
			Using a control device	Not using a control device
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions; notifications	Yes	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes	Yes.
§ 63.4	Prohibited Activities	Prohibited activities; compliance date; circumvention; severability	Yes	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes	Yes.
§ 63.6(a)	Applicability	GP apply unless compliance extension; GP apply to area sources that become major	Yes	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 section 112(f)	Yes	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes	Yes.
§ 63.6(b)(6)	[Reserved]			
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources that Become Major		No	No.
§ 63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in 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	Yes	Yes.
§ 63.6(c)(3)-(4)	[Reserved]			
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources that	Area sources that become major must comply with major source	Yes	Yes.

	Become Major	standards by date indicated in subpart or by equivalent time period (for example, 3 years)		
§ 63.6(d)	[Reserved]			
§ 63.6(e)(1)-(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)		Yes	No.
§ 63.6(f)(1)	Compliance Except During SSM		Yes	No.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test; operation and maintenance plans; records; inspection	Yes	Yes.
§ 63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards		No	No.
§ 63.6(i)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes	Yes.
§ 63.7(a)(1)-(2)	Performance Test Dates		No	No.
§ 63.7(a)(3)	CAA section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes	No.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes	No.
§ 63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date	Yes	No.
§ 63.7(c)	Quality Assurance/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; and internal and external quality	Yes	No.

		assurance procedures for testing		
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes	No.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM; not a violation to exceed standard during SSM	Yes	No.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes	No.
§ 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; and conditions when data from an additional test run can be used	Yes	No.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes	No.
§ 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 report; and keep data for 5 years	Yes	No.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes	No.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes	No.
§ 63.8(a)(3)	[Reserved]			
§ 63.8(a)(4)	Monitoring with Flares		No	No.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes	Yes.
§ 63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes	Yes.

§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Applies as modified by § 63.5990(e) and (f)	No.
§ 63.8(c)(1)(i)	Routine and Predictable SSM		No	No.
§ 63.8(c)(1)(ii)	SSM not in SSMP		No	No.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	How Administrator determines if source complying with operation and maintenance requirements; review of source operation and maintenance procedures, records, manufacturer's instructions, recommendations, and inspection of monitoring system	Yes	Yes.
§ 63.8(c)(2)-(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; must verify operational status before or at performance test	Yes	No.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements		Applies as modified by § 63.5990(f)	No.
§ 63.8(c)(5)	Continuous Opacity Monitoring Systems (COMS) Minimum Procedures		No	No.
§ 63.8(c)(6)	CMS Requirements		Applies as modified by § 63.5990(e)	No.
§ 63.8(c)(7)-(8)	CMS Requirements	Out-of-control periods, including reporting	Yes	No.
§ 63.8(d)	CMS Quality Control		Applies as modified by § 63.5990(e) and (f)	No.
§ 63.8(e)	CMS Performance Evaluation		No	No.
§ 63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test		No	No.
§ 63.8(g)	Data Reduction		Applies as modified by § 63.5990(f)	No.
§ 63.9(a)	Notification Requirements	Applicability and state delegation	Yes	Yes.

§ 63.9(b)(1)-(5)	Initial Notifications	Submit notification 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construct/reconstruct, notification of startup; and contents of each	Yes	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	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes	No.
§ 63.9(f)	Notification of VE/Opacity Test	No	No	
§ 63.9(g)	Additional Notifications When Using CMS	No	No	
§ 63.9(h)	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	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes	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 1 source	Yes	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements; keep all records readily available; and keep for 5 years.	Yes	Yes.
§ 63.10(b)(2)(i)-(iv)	Records related to Startup, Shutdown, and Malfunction.	Yes	No	
§ 63.10(b)(2)(vi) and (x)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control; calibration checks; adjustments, maintenance	Yes	No.
§ 63.10(b)(2) (vii)-(ix)	Records	Measurements to demonstrate compliance with emission limitations; performance test,	Yes	Yes.

		performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations		
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes	Yes.
§ 63.10(b)(2)(xiii)	Records		No	No.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes	Yes.
§ 63.10(c)	Records		No	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes	No.
§ 63.10(d)(3)	Reporting Opacity or VE Observations		No	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports		Yes	No.
§ 63.10(e)	Additional CMS Reports		No	No.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes	Yes.
§ 63.11	Flares		No	No.
§ 63.12	Delegation	State authority to enforce standards	Yes	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes	Yes.

Indiana Department of Environmental Quality
Office of Air Quality

Attachment B

Title 40: Protection of Environment

Part 60—Standards of Performance for New Stationary Sources (NSPS)

Subpart BBB—Standards of Performance for the Rubber Tire Manufacturing Industry

Source: 52 FR 34874, Sept. 15, 1987, unless otherwise noted.

§ 60.540 Applicability and designation of affected facilities.

(a) The provisions of this subpart, except as provided in paragraph (b) of this section, apply to each of the following affected facilities in rubber tire manufacturing plants that commence construction, modification, or reconstruction after January 20, 1983: each undertread cementing operation, each sidewall cementing operation, each tread end cementing operation, each bead cementing operation, each green tire spraying operation, each Michelin-A operation, each Michelin-B operation, and each Michelin-C automatic operation.

(b) The owner or operator of each undertread cementing operation and each sidewall cementing operation in rubber tire manufacturing plants that commenced construction, modification, or reconstruction after January 20, 1983, and before September 15, 1987, shall have the option of complying with the alternate provisions in § 60.542a. This election shall be irreversible. The alternate provisions in § 60.542a do not apply to any undertread cementing operation or sidewall cementing operation that is modified or reconstructed after September 15, 1987. The affected facilities in this paragraph are subject to all applicable provisions of this subpart.

(c) Although the affected facilities listed under § 60.540(a) are defined in reference to the production of components of a “tire,” as defined under § 60.541(a), the percent emission reduction requirements and VOC use cutoffs specified under § 60.542(a)(1), (2), (6), (7)(iii), (7)(iv), (8), (9), and (10) refer to the total amount of VOC used (the amount allocated to the affected facility), including the VOC used in cements and organic solvent-based green tire spray materials for tire types not listed in the § 60.541(a) definition of “tire.”

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38635, Sept. 19, 1989]

§ 60.541 Definitions.

(a) All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in subpart A of this part.

Bead means rubber-covered strands of wire, wound into a circular form, which ensure a seal between a tire and the rim of the wheel onto which the tire is mounted.

Bead cementing operation means the system that is used to apply cement to the bead rubber before or after it is wound into its final circular form. A bead cementing operation consists of a cement application station, such as a dip tank, spray booth and nozzles, cement trough and roller or swab applicator, and all other equipment necessary to apply cement to wound beads or bead rubber and to allow evaporation of solvent from cemented beads.

Component means a piece of tread, combined tread/sidewall, or separate sidewall rubber, or other rubber strip that is combined into the sidewall of a finished tire.

Drying area means the area where VOC from applied cement or green tire sprays is allowed to evaporate.

Enclosure means a structure that surrounds a VOC (cement, solvent, or spray) application area and drying area, and that captures and contains evaporated VOC and vents it to a control device. Enclosures may have permanent and temporary openings.

Green tire means an assembled, uncured tire.

Green tire spraying operation means the system used to apply a mold release agent and lubricant to the inside and/or outside of green tires to facilitate the curing process and to prevent rubber from sticking to the curing press. A green tire spraying operation consists of a booth where spraying is performed, the spray application station, and related equipment, such as the lubricant supply system.

Michelin-A operation means the operation identified as Michelin-A in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

Michelin-B operation means the operation identified as Michelin-B in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

Michelin-C-automatic operation means the operation identifed as Michelin-C-automatic in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

Month means a calendar month or a prespecified period of 28 days or 35 days (utilizing a 4-4-5-week recordkeeping and reporting schedule).

Organic solvent-based green tire spray means any mold release agent and lubricant applied to the inside or outside of green tires that contains more than 12 percent, by weight, of VOC as sprayed.

Permanent opening means an opening designed into an enclosure to allow tire components to pass through the enclosure by conveyor or other mechanical means, to provide access for permanent mechanical or electrical equipment, or to direct air flow into the enclosure. A permanent opening is not equipped with a door or other means of obstruction of air flow.

Sidewall cementing operation means the system used to apply cement to a continuous strip of sidewall component or any other continuous strip component (except combined tread/sidewall component) that is incorporated into the sidewall of a finished tire. A sidewall cementing operation consists of a cement application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to sidewall strips or other continuous strip component (except combined tread/sidewall component) and to allow evaporation of solvent from the cemented rubber.

Temporary opening means an opening into an enclosure that is equipped with a means of obstruction, such as a door, window, or port, that is normally closed.

Tire means any agricultural, airplane, industrial, mobile home, light-duty truck and/or passenger vehicle tire that has a bead diameter less than or equal to 0.5 meter (m) (19.7 inches) and a cross section dimension less than or equal to 0.325 m (12.8 in.), and that is mass produced in an assembly-line fashion.

Tread end cementing operation means the system used to apply cement to one or both ends of the tread or combined tread/sidewall component. A tread end cementing operation consists of a cement

application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to tread ends and to allow evaporation of solvent from the cemented tread ends.

Undertread cementing operation means the system used to apply cement to a continuous strip of tread or combined tread/sidewall component. An undertread cementing operation consists of a cement application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to tread or combined tread/sidewall strips and to allow evaporation of solvent from the cemented tread or combined tread/sidewall.

VOC emission control device means equipment that destroys or recovers VOC.

VOC emission reduction system means a system composed of an enclosure, hood, or other device for containment and capture of VOC emissions and a VOC emission control device.

Water-based green tire spray means any mold release agent and lubricant applied to the inside or outside of green tires that contains 12 percent or less, by weight, of VOC as sprayed.

(b) Notations used under this subpart are defined below:

B_o =total number of beads cemented at a particular bead cementing affected facility for a month

C_a =concentration of VOC in gas stream in vents after a control device (parts per million by volume)

C_b =concentration of VOC in gas stream in vents before a control device (parts per million by volume)

C_f =concentration of VOC in each gas stream vented directly to the atmosphere from an affected facility or from a temporary enclosure around an affected facility (parts per million by volume)

D_c =density of cement or spray material (grams per liter (lb per gallon))

D_r =density of VOC recovered by an emission control device (grams per liter (lb per gallon))

E=emission control device efficiency, inlet versus outlet (fraction)

F_c =capture efficiency, VOC captured and routed to one control device versus total VOC used for an affected facility (fraction)

F_o =fraction of total mass of VOC used in a month by all facilities served by a common cement or spray material distribution system that is used by a particular affected facility served by the common distribution system

G=monthly average mass of VOC used per tire cemented or sprayed with a water-based green tire spray for a particular affected facility (grams (lb) per tire)

G_b =monthly average mass of VOC used per bead cemented for a particular bead cementing affected facility (grams (lb) per bead)

L_c =volume of cement or spray material used for a month (liters (gallons))

L_r =volume of VOC recovered by an emission control device for a month (liters (gallons))

M=total mass of VOC used for a month by all facilities served by a common cement or spray material distribution system (grams (lb))

M_o =total mass of VOC used at an affected facility for a month (grams (lb))

M_r =mass of VOC recovered by an emission control device for a month (grams (lb))

N=mass of VOC emitted to the atmosphere per tire cemented or sprayed with a water-based green tire spray for an affected facility for a month (grams (lb) per tire)

N_b =mass of VOC emitted per bead cemented for an affected facility for a month (grams (lb) per bead)

Q_a =volumetric flow rate in vents after a control device (dry standard cubic meters (dry standard cubic feet) per hour)

Q_b =volumetric flow rate in vents before a control device (dry standard cubic meters (dry standard cubic feet) per hour)

Q_f =volumetric flow rate of each stream vented directly to the atmosphere from an affected facility or from a temporary enclosure around an affected facility (dry standard cubic meters (dry standard cubic feet) per hour)

R=overall efficiency of an emission reduction system (fraction)

T_d =total number of days in monthly compliance period (days)

T_o =total number of tires cemented or sprayed with water-based green tire sprays at a particular affected facility for a month

W_o =weight fraction of VOC in a cement or spray material.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61764, Oct. 17, 2000]

§ 60.542 Standards for volatile organic compounds.

(a) On and after the date on which the initial performance test, required by § 60.8, is completed, but no later than 180 days after initial startup, each owner or operator subject to the provisions of this subpart shall comply with the following conditions:

(1) For each undertread cementing operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 3,870 kg (8,531 lb) of VOC per 28 days,

(B) 4,010 kg (8,846 lb) of VOC per 29 days,

(C) 4,150 kg (9,149 lb) of VOC per 30 days,

(D) 4,280 kg (9,436 lb) of VOC per 31 days, or

(E) 4,840 kg (10,670 lb) of VOC per 35 days.

(2) For each sidewall cementing operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 3,220 kg (7,099 lb) of VOC per 28 days,

(B) 3,340 kg (7,363 lb) of VOC per 29 days,

(C) 3,450 kg (7,606 lb) of VOC per 30 days,

(D) 3,570 kg (7,870 lb) of VOC per 31 days, or

(E) 4,030 kg (8,885 lb) of VOC per 35 days.

(3) For each tread end cementing operation: Discharge into the atmosphere no more than 10 grams (0.022 lb) of VOC per tire cemented for each month.

(4) For each bead cementing operation: Discharge into the atmosphere no more than 5 grams (0.011 lb) of VOC per bead cemented for each month.

(5) For each green tire spraying operation where only water-based sprays are used:

(i) Discharge into the atmosphere no more than 1.2 grams (0.0026 lb) of VOC per tire sprayed with an inside green tire spray for each month; and

(ii) Discharge into the atmosphere no more than 9.3 grams (0.021 lb) of VOC per tire sprayed with an outside green tire spray for each month.

(6) For each green tire spraying operation where only organic solvent-based sprays are used:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 3,220 kg (7,099 lb) of VOC per 28 days,

(B) 3,340 kg (7,363 lb) of VOC per 29 days,

(C) 3,450 kg (7,606 lb) of VOC per 30 days,

(D) 3,570 kg (7,870 lb) of VOC per 31 days, or

(E) 4,030 kg (8,885 lb) of VOC per 35 days.

(7) For each green tire spraying operation where both water-based and organic solvent-based sprays are used:

(i) Discharge into the atmosphere no more than 1.2 grams (0.0026 lb) of VOC per tire sprayed with a water-based inside green tire spray for each month; and

(ii) Discharge into the atmosphere no more than 9.3 grams (0.021 lb) of VOC per tire sprayed with a water-based outside green tire spray for each month; and either

(iii) Discharge into the atmosphere no more than 25 percent of the VOC used in the organic solvent-based green tire sprays (75 percent emission reduction) for each month; or

(iv) Maintain total (uncontrolled) VOC use for all organic solvent-based green tire sprays less than or equal to the levels specified under paragraph (a)(6)(ii) of this section.

(8) For each Michelin-A operation:

(i) Discharge into the atmosphere no more than 35 percent of the VOC used (65 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 1,570 kg (3,461 lb) of VOC per 28 days,

(B) 1,630 kg (3,593 lb) of VOC per 29 days,

(C) 1,690 kg (3,726 lb) of VOC per 30 days,

(D) 1,740 kg (3,836 lb) of VOC per 31 days, or

(E) 1,970 kg (4,343 lb) of VOC per 35 days.

(9) For each Michelin-B operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 1,310 kg (2,888 lb) of VOC per 28 days,

(B) 1,360 kg (2,998 lb) of VOC per 29 days,

(C) 1,400 kg (3,086 lb) of VOC per 30 days,

(D) 1,450 kg (3,197 lb) of VOC per 31 days, or

(E) 1,640 kg (3,616 lb) of VOC per 35 days.

(10) For each Michelin-C-automatic operation:

(i) Discharge into the atmosphere no more than 35 percent of the VOC used (65 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified under paragraph (a)(8)(ii) of this section.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61764, Oct. 17, 2000]

§ 60.542a Alternate standard for volatile organic compounds.

(a) On and after the date on which the initial performance test, required by § 60.8, is completed, but no later than 180 days after September 19, 1989, each owner or operator subject to the provisions in § 60.540(b) shall not cause to be discharged into the atmosphere more than: 25 grams (0.055 lb) of VOC per tire processed for each month if the operation uses 25 grams (0.055 lb) or less of VOC per tire processed and does not employ a VOC emission reduction system.

(b) [Reserved]

[54 FR 38635, Sept. 19, 1989, as amended at 65 FR 61765, Oct. 17, 2000]

§ 60.543 Performance test and compliance provisions.

(a) Section 60.8(d) does not apply to the monthly performance test procedures required by this subpart. Section 60.8(d) does apply to initial performance tests and to the performance tests specified under paragraphs (b)(2) and (b)(3) of this section. Section 60.8(f) does not apply when Method 24 is used.

(b) Performance tests shall be conducted as follows:

(1) The owner or operator of an affected facility shall conduct an initial performance test, as required under § 60.8(a), except as described under paragraph (j) of this section. The owner or operator of an affected facility shall thereafter conduct a performance test each month, except as described under paragraphs (b)(4), (g)(1), and (j) of this section. Initial and monthly performance tests shall be conducted according to the procedures in this section.

(2) The owner or operator of an affected facility who elects to use a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), as described under paragraphs (f) and (g) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of overall reduction efficiency. The performance test shall be conducted in accordance with the procedures described under paragraphs (f)(2) (i) through (iv) of this section.

(3) The owner or operator of an affected facility who seeks to comply with the equipment design and performance specifications, as described under paragraph (j) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of control device efficiency or measurement of capture system retention time or face velocity. The performance test shall be conducted in accordance with the procedures described under paragraph (f)(2)(ii) of this section.

(4) The owner or operator of each tread end cementing operation and each green tire spraying operation using only water-based sprays (inside and/or outside) containing less than 1.0 percent, by weight, of VOC is not required to conduct a monthly performance test as described in paragraph (d) of this section. In lieu of conducting a monthly performance test, the owner or operator of each tread end cementing operation and each green tire spraying operation shall submit formulation data or the results of Method 24 analysis annually to verify the VOC content of each tread end cement and each green tire spray material, provided the spraying formulation has not changed during the previous 12 months. If the spray material formulation changes, formulation data or Method 24 analysis of the new spray shall be conducted to determine the VOC content of the spray and reported within 30 days as required under § 60.546(j).

(c) For each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation where the owner or operator seeks to comply with the uncontrolled monthly VOC use limits, the owner or operator shall use the following procedure to determine compliance with the applicable (depending upon duration of compliance period) uncontrolled monthly VOC use limit specified under § 60.542(a) (1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), and (10)(ii). If both undertread cementing and sidewall cementing are performed at the same affected facility during a month, then the kg/mo limit specified under § 60.542(a)(1)(ii) shall apply for that month.

(1) Determine the density and weight fraction VOC (including dilution VOC) of each cement or green tire spray from its formulation or by analysis of the cement or green tire spray using Method 24. If a dispute arises, the Administrator may require an owner or operator who used formulation data to analyze the cement or green tire spray using Method 24.

(2) Calculate the total mass of VOC used at the affected facility for the month (M_o) by the following procedure:

(i) For each affected facility for which cement or green tire spray is delivered in batch or via a distribution system that serves only the affected facility:

$$M_o = \sum_{i=1}^{a} L_{c_i} D_{c_i} W_{o_i}$$

Where:

"a" equals the number of different cements or green tire sprays used during the month that are delivered in batch or via a distribution system that serves only a single affected facility.

(ii) For each affected facility for which cement or green tire spray is delivered via a common distribution system that also serves other affected or existing facilities:

(A) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month (M):

$$M = \sum_{i=1}^{b} L_{c_i} D_{c_i} W_{o_i}$$

Where:

"b" equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.

(B) Determine the fraction (F_o) of M used at the affected facility by comparing the production records and process specifications for the material cemented or sprayed at the affected facility for the month to the production records and process specifications for the material cemented or sprayed at all other facilities served by the common distribution system for the month or by another procedure acceptable to the Administrator.

(C) Calculate the total monthly mass of VOC used at the affected facility for the month (M_o):

$M_o = MF_o$

(3) Determine the time duration of the monthly compliance period (T_d).

(d) For each tread end cementing operation and each green tire spraying operation where water-based cements or sprays containing 1.0 percent, by weight, of VOC or more are used (inside and/or outside) that do not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per tire limit specified under § 60.542 (a)(3), (a)(5)(i), (a)(5)(ii), (a)(7)(i), and (a)(7)(ii).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month (M_o) as specified under paragraph (c)(2) of this section.

(3) Determine the total number of tires cemented or sprayed at the affected facility for the month (T_o) by the following procedure:

(i) For a trend end cementing operation, T_o equals the number of tread or combined tread/sidewall components that receive an application of tread end cement for the month.

(ii) For a green tire spraying operation that uses water-based inside green tire sprays, T_o equals the number of green tires that receive an application of water-based inside green tire spray for the month.

(iii) For a green tire spraying operation that uses water-based outside green tire sprays, T_o equals the number of green tires that receive an application of water-based outside green tire spray for the month.

(4) Calculate the mass of VOC used per tire cemented or sprayed at the affected facility for the month (G):

$$G = \frac{M_o}{T_o}$$

(5) Calculate the mass of VOC emitted per tire cemented or sprayed at the affected facility for the month (N):

N = G

(e) For each bead cementing operation that does not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per bead limit specified under § 60.542(a)(4).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month (M_o) as specified under paragraph (c)(2) of this section.

(3) Determine the number of beads cemented at the affected facility during the month (B_o) using production records; B_o equals the number of beads that receive an application of cement for the month.

(4) Calculate the mass of VOC used per bead cemented at the affected facility for the month (G_b):

$$G_b = \frac{M_o}{B_o}$$

(5) Calculate the mass of VOC emitted per bead cemented at the affected facility for the month (N_b):

$N_b = G_b$

(f) For each tread end cementing operation and each bead cementing operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the emission limit specified under § 60.542(a) (3) and (4).

(1) Calculate the mass of VOC used per tire cemented at the affected facility for the month (G), as specified under paragraphs (d) (1) through (4) of this section, or mass of VOC used per bead cemented at the affected facility for the month (G_b), as specified under paragraphs (e) (1) through (4) of this section.

(2) Calculate the mass of VOC emitted per tire cemented at the affected facility for the month (N) or mass of VOC emitted per bead cemented for the affected facility for the month (N_b):

$N = G\ (1-R)$

$N_b = G_b\ (1-R)$

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed under paragraphs (f)(2) (i) through (iv) of this section. After the initial performance test, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test. No monthly performance tests are required. The performance test shall be repeated during conditions described under paragraph (b)(2) of this section.

(i) The owner or operator of an affected facility shall construct a temporary enclosure around the application and drying areas during the performance test for the purpose of capturing fugitive VOC emissions. The enclosure must be maintained at a negative pressure to ensure that all evaporated VOC are measurable. Determine the fraction (F_c) of total VOC used at the affected facility that enters the control device:

$$F_c = \frac{\sum_{i=1}^{m} C_{b_i} Q_{b_i}}{\sum_{i=1}^{m} C_{b_i} Q_{b_i} + \sum_{i=1}^{n} C_{f_i} Q_{f_i}}$$

Where:

“m” is the number of vents from the affected facility to the control device, and “n” is the number of vents from the affected facility to the atmosphere and from the temporary enclosure.

(ii) Determine the destruction efficiency of the control device (E) by 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 control device:

$$E = \frac{\sum_{i=1}^{m} C_{b_i} Q_{b_i} - \sum_{i=1}^{p} C_{a_i} Q_{a_i}}{\sum_{i=1}^{m} C_{b_i} Q_{b_i}}$$

Where:

“m” is the number of vents from the affected facility to the control device, and “p” is the number of vents after the control device.

(iii) Determine the overall reduction efficiency (R):

$R = EF_c$

(iv) The owner or operator of an affected facility shall have the option of substituting the following procedure as an acceptable alternative to the requirements prescribed under paragraph (f)(2)(i) of this section. This alternative procedure is acceptable only in cases where a single VOC is used and is present in the capture system. The average capture efficiency value derived from a minimum of three runs shall constitute a test.

(A) For each run, “i,” measure the mass of the material containing a single VOC used. This measurement shall be made using a scale that has both a calibration and a readability to within 1 percent of the mass used during the run. This measurement may be made by filling the direct supply reservoir (e.g., trough, tray, or drum that is integral to the operation) and related application equipment (e.g., rollers, pumps, hoses) to a marked level at the start of the run and then refilling to the same mark from a more easily weighed container (e.g., separate supply drum) at the end of the run. The change in mass of the supply drum would equal the mass of material used from the direct supply reservoir. Alternatively, this measurement may be made by weighing the direct supply reservoir at the start and end of the run or by weighing the direct supply reservoir and related application equipment at the start and end of the run. The change in mass would equal the mass of the material used in the run. If only the direct supply reservoir is weighed, the amount of material in or on the related application equipment must be the same at the start and end of the run. All additions of VOC containing material made to the direct supply reservoir during a run must be properly accounted for in determining the mass of material used during that run.

(B) For each run, “i,” measure the mass of the material containing a single VOC which is present in the direct supply reservoir and related application equipment at the start of the run, unless the ending weight fraction VOC in the material is greater than or equal to 98.5 percent of the starting weight fraction VOC in the material, in which case, this measurement is not required. This measurement may be made directly by emptying the direct supply reservoir and related application equipment and then filling them to a marked level from an easily weighed container (e.g. separate supply drum). The change in mass of the supply drum would equal the mass of material in the filled direct supply reservoir and related application equipment. Alternatively, this measurement may be made by weighing the direct supply reservoir and related application equipment at the start of the run and subtracting the mass of the empty direct supply reservoir and related application equipment (tare weight).

(C) For each run, “i,” the starting weight fraction VOC in the material shall be determined by Method 24 analysis of a sample taken from the direct supply reservoir at the beginning of the run.

(D) For each run, “i,” the ending weight fraction VOC in the material shall be determined by Method 24 analysis of a sample taken from the direct supply reservoir at the end of the run.

(E) For each run, “i,” in which the ending weight fraction VOC in the material is greater than or equal to 98.5 percent of the starting weight fraction VOC in the material, calculate the mass of the single VOC

used (Mi) by multiplying the mass of the material used in the run by the starting weight fraction VOC of the material used in the run.

(F) For each run, "i," in which the ending weight fraction VOC in the material is less than 98.5 percent of the starting weight fraction VOC in the material, calculate the mass of the single VOC used (M_i) as follows:

(*1*) Calculate the mass of VOC present in the direct supply reservoir and related application equipment at the start of the run by multiplying the mass of material in the direct supply reservoir and related application equipment at the start of the run by the starting weight fraction VOC in the material for that run.

(*2*) Calculate the mass of VOC present in the direct supply reservoir and related application equipment at the end of the run by multiplying the mass of material in the direct supply reservoir and related application equipment at the end of the run by the ending weight fraction VOC in the material for that run. The mass of material in the direct supply reservoir and related application equipment at the end of the run shall be calculated by subtracting the mass of material used in the run from the mass of material in the direct supply reservoir and related application equipment at the start of the run.

(*3*) The mass of the single VOC used (M_i) equals the mass of VOC present in the direct supply reservoir and related application equipment at the start of the run minus the mass of VOC present in the direct supply reservoir and related application equipment at the end of the run.

(G) If Method 25A is used to determine the concentration of the single VOC in the capture system, then calculate the capture efficiency (FC_i) for each run, "i," as follows:

$$FC_i = \frac{C_i \; \frac{W}{V} \; Q_i}{(M_i)\,(10^6)}$$

Where:

C_i = Average concentration of the single VOC in the capture system during run "i" (parts per million by volume) corrected for background VOC (see § 60.547(a)(5)).

W = Molecular weight of the single VOC, mg/mg-mole (lb/lb-mole).

V = The volume occupied by one mole of ideal gas at standard conditions [20 °C, 760 mm Hg] on a wet basis, 2.405 × 10^{-5} m^3 /mg-mole (385.3 ft^3 /lb-mole).

Q_i = Volumetric flow in the capture system during run i, on a wet basis, adjusted to standard conditions, m^3 (ft^3) (see § 60.547(a)(5)).

10^6 = ppm per unity.

M_i = Mass of the single VOC used during run i, mg (lb).

(H) If Method 25 is used to determine the concentration of the single VOC in the capture system, then calculate the capture efficiency (FC_i) for each run, "i," as follows:

$$FC_i = \frac{\frac{C_i}{(NC)(10^6)} \; \frac{(W)(Q_i)}{(V)}}{M_i}$$

Where: C_i = Average concentration of the single VOC in the capture system during run "i" (parts per million, as carbon, by volume) corrected for background VOC (see § 60.547(a)(5)).

W = Molecular weight of the single VOC, mg/mg-mole (lb/lb-mole).

V = The volume occupied by one mole of ideal gas at standard conditions [20 °C, 760 mm Hg] on a wet basis, 2.405×10^{-5} m^3 /mg-mole (385.3 ft^3 /lb-mole).

Q_i = Volumetric flow in the capture system during run i, on a wet basis, adjusted to standard conditions, m^3 (ft^3) (see § 60.547(a)(5)).

10^6 = ppm per unity.

M_i = Mass of the single VOC used during run i, mg (lb).

NC = Number of carbon atoms in one molecule of the single VOC.

(I) Calculate the average capture efficiency value, F_c as follows:

$$F_c = \frac{\sum_{i=1}^{n} FC_i}{n}$$

Where:

"n" equals the number of runs made in the test (n ≥ 3). In cases where an alternative procedure in this paragraph is used, the requirements in paragraphs (f)(2) (ii) and (iii) of this section remain unchanged.

(g) For each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the percent emission reduction requirement specified under § 60.542 (a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i).

(1) For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed under paragraphs (f)(2) (i) through (iii) of this section. The performance test shall be repeated during conditions described under paragraph (b)(2) of this section. No monthly performance tests are required.

(h) For each tread end cementing operation and each bead cementing operation that uses a VOC emission reduction system with a control device that recovers VOC (e.g., carbon adsorber), the owner or operator shall use the following procedure to determine compliance with the emission limit specified under § 60.542(a) (3) and (4).

(1) Calculate the mass of VOC used per tire cemented at the affected facility for the month (G), as specified under paragraphs (d) (1) through (4) of this section, or mass of VOC used per bead cemented at the affected facility for the month (G_b), as specified under paragraphs (e) (1) through (4) of this section.

(2) Calculate the total mass of VOC recovered from the affected facility for the month (M_r):

$M_r = L_r D_r$

(3) Calculate the overall reduction efficiency for the VOC emission reduction system (R) for the month:

$$R = \frac{M_r}{M_o}$$

(4) Calculate the mass of VOC emitted per tire cemented at the affected facility for the month (N) or mass of VOC emitted per bead cemeted at the affected facility for the month (N_b):

$N = G\ (1-R)$

$N_b = G_b\ (1-R)$

(i) For each undertread cementing operation, each sidewall cemeting operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation that uses a VOC emission reduction system with a control device that recovers (VOC) (e.g., carbon adsorber), the owner or operator shall use the following procedure to determine compliance with the percent reduction requirement specified under § 60.542(a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month (M_o) as described under paragraph (c)(2) of this section.

(3) Calculate the total mass of VOC recovered from the affected facility for the month (M_r) as described under paragraph (h)(2) of this section.

(4) Calculate the overall reduction efficiency for the VOC emission reduction system (R) for the month as described under paragraph (h)(3) of this section.

(j) Rather than seeking to demonstrate compliance with the provisions of § 60.542(a) (1)(i), (2)(i), (6)(i), (7)(iii), or (9)(i) using the performance test procedures described under paragraphs (g) and (i) of this section, an owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation that use a VOC emission reduction system may seek to demonstrate compliance by meeting the equipment design and performance specifications listed under paragraphs (j)(1), (2), and (4) through (6) or under paragraphs (j)(1) and (3) through (6) of this section, and by conducting a control device efficiency performance test to determine compliance as described under paragraph (j)(7) of this section. The owner or operator shall conduct this performance test of the control device efficiency no later than 180 days after initial startup of the affected facility, as specified under § 60.8(a). Meeting the capture system design and performance specifications, in conjunction with operating a 95 percent efficient control device, is an acceptable means of demonstrating compliance with the standard. Therefore, the requirement for the initial performance test on the enclosure, as specified under § 60.8(a), is waived. No monthly performance tests are required.

(1) For each undertread cementing operation, each sidewall cementing operation, and each Michelin-B operation, the cement application and drying area shall be contained in an enclosure that meets the criteria specified under paragraphs (j) (2), (4), and (5) of this section; for each green tire spraying operation where organic solvent-based sprays are used, the spray application and drying area shall be contained in an enclosure that meets the criteria specified under paragraphs (j) (3), (4), and (5) of this section.

(2) The drying area shall be enclosed between the application area and the water bath or to the extent necessary to contain all tire components for at least 30 seconds after cement application, whichever distance is less.

(3) Sprayed green tires shall remain in the enclosure for a minimum of 30 seconds after spray application.

(4) A minimum face velocity of 30.5 meters (100 feet) per minute shall be maintained continuously through each permanent opening into the enclosure when all temporary enclosure openings are closed. The cross-sectional area of each permanent opening shall be divided into at least 12 equal areas, and a velocity measurement shall be performed at the centroid of each equal area with an anemometer or similar velocity monitoring device; the face velocity of each permanent opening is the average value of the velocity measurements taken. The monitoring device shall be calibrated and operated according to the manufacturer's instructions.

Temporary enclosure openings shall remain closed at all times except when worker access is necessary.

(5) The total area of all permanent openings into the enclosure shall not exceed the area that would be necessary to maintain the VOC concentration of the exhaust gas stream at 25 percent of the lower explosive limit (LEL) under the following conditions:

(i) The facility is operating at the maximum solvent use rate;

(ii) The face velocity through each permanent opening is 30.5 meters (100 feet) per minute; and

(iii) All temporary openings are closed.

(6) All captured VOC are ducted to a VOC emission control device that is operated on a continuous basis and that achieves at least a 95 percent destruction or recovery efficiency.

(7) The efficiency of the control device (E) for the initial performance test is determined by 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 control device as described under paragraph (f)(2)(ii) of this section. The control device efficiency shall be redetermined during conditions specified under paragraph (b)(3) of this section.

(k) Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under § 60.542(a)(1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), or (10)(i) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under § 60.542(a)(1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), or (10)(ii) shall demonstrate, using the procedures described under paragraph (c) of this section, that the total VOC use at the affected facility has not exceeded the applicable total (uncontrolled) monthly VOC use limit during each of the last 6 months of operation. The owner or operator shall be subject to the applicable percent emission reduction requirement until the conditions of this paragraph and § 60.546(h) are satisfied.

(l) In determining compliance for each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation, the owner or operator shall include all the VOC used, recovered, or destroyed from cements and organic solvent-based green tire sprays including those cements or sprays used for tires other than those defined under § 60.541(a).

(m) In determining compliance for each tread end cementing operation, each bead cementing operation, and each green tire spraying operation, the owner or operator shall include only those tires defined under § 60.541(a) when determining T_o and B_o .

(n) For each undertread cementing operation and each sidewall cementing operation that does not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per tire limit specified in § 60.542a:

(1) Calculate the total mass of VOC (M_o) used at the affected facility for the month by the following procedure.

(i) For each affected facility for which cement is delivered in batch or via a distribution system which serves only that affected facility:

$$M_o = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi}$$

Where: “n” equals the number of different cements or sprays used during the month.

(ii) For each affected facility for which cement is delivered via a common distribution system which also serves other affected or existing facilities.

(A) Calculate the total mass (M) of VOC used for all of the facilities served by the common distribution system for the month:

$$M = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi}$$

Where: “n” equals the number of different cements or sprays used during the month.

(B) Determine the fraction (F_o) of “M” used by the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the Administrator.

(C) Calculate the total monthly mass of VOC(M_o) used at the affected facility:

$$M_o = MF_o$$

(2) Determine the total number of tires (T_o) processed at the affected facility for the month by the following procedure.

(i) For undertread cementing, T_o equals the number of tread or combined tread/sidewall components which receive an application of undertread cement.

(ii) For sidewall cementing, T_o equals the number of sidewall components which receive an application of sidewall cement, divided by 2.

(3) Calculate the mass of VOC used per tire processed (G) by the affected facility for the month:

$$G = \frac{M_o}{T_o}$$

(4) Calculate the mass of VOC emitted per tire processed (N) for the affected facility for the month:

$$N = G$$

(5) Where the value of the mass of VOC emitted per tire processed (N) is less than or equal to the VOC emission per tire limit specified under § 60.542a, the affected facility is in compliance.

[52 FR 34874, Sept. 15, 1987; 52 FR 37874, Oct. 9, 1987, as amended at 54 FR 38635, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

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§ 60.544 Monitoring of operations.

(a) Each owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

(1) Where a thermal incinerator is used for VOC emission reduction, a temperature monitoring device equipped with a continuous recorder for the temperature of the gas stream in the combustion zone of the incinerator. The temperature monitoring device shall have an accuracy of 1 percent of the temperature being measured in °C or ±0.5 °C, whichever is greater.

(2) Where a catalytic incinerator is used for VOC emission reduction, temperature monitoring devices, each equipped with a continuous recorder, for the temperature in the gas stream immediately before and after the catalyst bed of the incinerator. The temperature monitoring devices shall have an accuracy of 1 percent of the temperature being measured in °C or ±0.5 °C, whichever is greater.

(3) For an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation where a carbon adsorber is used to meet the performance requirements specified under § 60.543(j)(6), an organics monitoring device used to indicate the concentration level of organic compounds based on a detection principle such as infrared, photoionization, or thermal conductivity, equipped with a continous recorder, for the outlet of the carbon bed.

(b) An owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation where a VOC recovery device other than a carbon adsorber is used to meet the performance requirements specified under § 60.543(j)(6), shall provide to the Administrator information describing the operation of the control device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61765, Oct. 17, 2000]

§ 60.545 Recordkeeping requirements.

(a) Each owner or operator of an affected facility that uses a thermal incinerator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and

records of all 3-hour periods of operation for which the average temperature of the gas stream in the combustion zone was more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.

(b) Each owner or operator of an affected facility that uses a catalytic incinerator shall maintain continuous records of the temperature of the gas stream both upstream and downstream of the catalyst bed of the incinerator, records of all 3-hour periods of operation for which the average temperature measured before the catalyst bed is more than 28 °C (50 °F) below the gas stream temperature measured before the catalyst bed during the most recent determination of destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance, and records of all 3-hour periods for which the average temperature difference across the catalyst bed is less than 80 percent of the temperature difference measured during the most recent determination of the destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance.

(c) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation that uses a carbon adsorber to meet the requirements specified under § 60.543(j)(6) shall maintain continuous records of all 3-hour periods of operation during which the average VOC concentration level or reading of organics in the exhaust gases is more than 20 percent greater than the exhaust gas concentration level or reading measured by the organics monitoring device during the most recent determination of the recovery efficiency of the carbon adsorber that demonstrated that the affected facility was in compliance.

(d) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tires spraying operation where organic solvent-based sprays are used, Michelin-A operation, Michelin-B operation, or Michelin-C-automatic operation who seeks to comply with a specified VOC monthly usage limit shall maintain records of monthly VOC use and the number of days in each compliance period.

(e) Each owner or operator that is required to conduct monthly performance tests, as specified under § 60.543(b)(1), shall maintain records of the results of all monthly tests.

(f) Each owner or operator of a tread end cementing operation and green tire spraying operation using water-based cements or sprays containing less than 1.0 percent by weight of VOC, as specified under § 60.543(b)(4), shall maintain records of formulation data or the results of Method 24 analysis conducted to verify the VOC content of the spray.

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38637, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

§ 60.546 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart, at the time of notification of the anticipated initial startup of an affected facility pursuant to § 60.7(a)(2), shall provide a written report to the Administrator declaring for each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C automatic operation the emission limit he intends to comply with and the compliance method (where § 60.543(j) is applicable) to be employed.

(b) Each owner or operator subject to the provisions of this subpart, at the time of notification of the anticipated initial startup of an affected facility pursuant to § 60.7(a)(2), shall specify the monthly schedule (each calendar month or a 4-4-5-week schedule) to be used in making compliance determinations.

(c) Each owner or operator subject to the provisions of this subpart shall report the results of all initial performance tests, as required under § 60.8(a), and the results of the performance tests required

under § 60.543 (b)(2) and (b)(3). The following data shall be included in the report for each of the above performance tests:

(1) For each affected facility for which the owner or operator seeks to comply with a VOC monthly usage limit specified under § 60.542(a): The monthly mass of VOC used (M_o) and the number of days in the compliance period (T_d).

(2) For each affected facility that seeks to comply with a VOC emission limit per tire or per bead specified under § 60.542(a) without the use of a VOC emission reduction system: the mass of VOC used (M_o), the number of tires cemented or sprayed (T_o), the mass of VOC emitted per tire cemented or sprayed (N), the number of beads cemeted (B_o), and the mass of VOC emitted per bead cemented (N_b).

(3) For each affected facility that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator) to comply with a VOC emission limit per tire or per bead specified under § 60.542(a): The mass of VOC used (M_o), the number of tires cemented or sprayed (T_o), the mass of VOC emitted per tire cemented or sprayed (N), the number of beads cemented (B_o), the mass of VOC emitted per bead cemented (N_b), the mass of VOC used per tire cemented or sprayed (G), the mass of VOC per bead cemented (G_b), the emission control device efficiency (E), the capture system efficiency (F_c), the face velocity through each permanent opening for the capture system with the temporary openings closed, and the overall system emission reduction (R).

(4) For each affected facility that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator) to comply with a percent emission reduction requirement specified under § 60.542(a): The emission control device efficiency (E), the capture system efficiency (F_c), the face velocity through each permanent opening in the capture system with the temporary openings closed, and the overall system emission reduction (R).

(5) For each affected facility that uses a carbon adsorber to comply with a VOC emission limit per tire or per bead specified under § 60.542(a): The mass of VOC used (M_o), the number of tires cemented or sprayed (T_o), the mass of VOC used per tire cemented or sprayed (G), the number of beads cemented (B_o), the mass of VOC used per bead (G_b), the mass of VOC recovered (M_r), the overall system emission reduction (R), the mass of VOC emitted per tire cemented or sprayed (N), and the mass of VOC emitted per bead cemented (N_b).

(6) For each affected facility that uses a VOC emission reduction system with a control device that recovers VOC (e.g., carbon adsorber) to comply with a percent emission reduction requirement specified under § 60.542(a): The mass of VOC used (M_o), the mass of VOC recovered (M_r), and the overall system emission reduction (R).

(7) For each affected facility that elects to comply with the alternate limit specified under § 60.542a: The mass of VOC used (M_o), the number of tires processed (T_o), and the mass of VOC emitted per tire processed (N).

(d) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation who seeks to comply with the requirements described under § 60.543(j) shall include in the initial compliance report a statement specifying, in detail, how each of the equipment design and performance specifications has been met. The initial compliance report also shall include the following data: The emission control device efficiency (E), the face velocity through each permanent enclosure opening with all temporary enclosure openings closed, the total area of all permanent enclosure openings, the total area of all temporary enclosure openings, the maximum solvent use rate (kg/hr or lb/hr), the type(s) of VOC used, the lower explosive limit (LEL) for each VOC used, and the length of time each component is enclosed after application of cement or spray material.

(e) Each owner or operator of an affected facility shall include the following data measured by the required monitoring device(s), as applicable, in the report for each performance test specified under paragraph (c) of this section.

(1) The average combustion temperature measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each thermal incinerator.

(2) The average temperature before and after the catalyst bed measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each catalytic incinerator.

(3) The concentration level or reading indicated by the organics monitoring device at the outlet of the adsorber, measured at least every 15 minutes and averaged over the performance test period of carbon adsorber recovery efficiency while the vent stream is normally routed and constituted.

(4) The appropriate data to be specified by the Administrator where a VOC recovery device other than a carbon adsorber is used.

(f) Once every 6 months each owner or operator subject to the provisions of § 60.545 shall report, as applicable:

(1) Each monthly average VOC emission rate that exceeds the VOC emission limit per tire or per bead specified under § 60.542(a), as applicable for the affected facility.

(2) Each monthly average VOC use rate that exceeds the monthly VOC usage limit specified under § 60.542(a), as applicable for the affected facility.

(3) Each monthly average VOC emission reduction efficiency for a VOC recovery device (e.g., carbon adsorber) less than the percent efficiency limit specified under § 60.542(a), as applicable for the affected facility.

(4) Each 3-hour period of operation for which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.

(5) Each 3-hour period of operation for which the average temperature of the gas stream immediately before the catalyst bed of a catalytic incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the gas stream temperature measured before the catalyst bed during the most recent determination of the destruction efficiency of the catalyst incinerator that demonstrated that the affected facility was in compliance, and any 3-hour period for which the average temperature difference across the catalyst bed (i.e., the difference between the temperatures of the gas stream immediately before and after the catalyst bed), as measured by the temperature monitoring device, is less than 80 percent of the temperature difference measured during the most recent determination of the destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance.

(6) Each 3-hour period of operation during which the average concentration level or reading of VOC's in the exhaust gases from a carbon adsorber is more than 20 percent greater than the exhaust gas concentration level or reading measured by the organics monitoring device during the most recent determination of the recovery efficiency of the carbon adsorber that demonstrated that the affected facility was in compliance.

(g) The requirements for semiannual reports 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 facilities within the State will be relieved of the obligation to comply with these requirements, provided that they comply with the requirements established by the State.

(h) Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under § 60.542(a) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under § 60.542(a) and who has satisfied the provisions specified under § 60.543(k) shall furnish the Administrator written notification no less than 30 days in advance of the date when he intends to be subject to the applicable VOC use limit instead of the applicable percent emission reduction requirement.

(i) The owner or operator of each undertread cementing operation and each sidewall cementing operation who qualifies for the alternate provisions as described in § 60.542a, shall furnish the Administrator written notification of the election no less than 60 days after September 19, 1989.

(j) The owner or operator of each tread end cementing operation and each green tire spraying (inside and/or outside) operation using water-based sprays containing less than 1.0 percent, by weight, of VOC as described in § 60.543(b)(1) shall furnish the Administrator, within 60 days initially and annually thereafter, formulation data or Method 24 results to verify the VOC content of the water-based sprays in use. If the spray formulation changes before the end of the 12-month period, formulation data or Method 24 results to verify the VOC content of the spray shall be reported within 30 days of the change.

[52 FR 34874, Sept. 15, 1987; 52 FR 37874, Oct. 9, 1987, as amended at 54 FR 38637, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

§ 60.547 Test methods and procedures.

(a) The test methods in appendix A to this part, except as provided under § 60.8(b), shall be used to determine compliance with § 60.542(a) as follows:

(1) Method 24 or formulation data for the determination of the VOC content of cements or green tire spray materials. In the event of dispute, Method 24 shall be the reference method. For Method 24, the cement or green tire spray sample shall be a 1-liter sample collected in a 1-liter container at a point where the sample will be representative of the material as applied in the affected facility.

(2) Method 25 as the reference method for the determination of the VOC concentrations in each stack, both entering and leaving an emission control device. The owner or operator shall notify the Administrator at least 30 days in advance of any test by Method 25. For Method 25, the sampling time for each of three runs shall be at least 1 hour. Method 1 shall be used to select the sampling site, and the sampling point shall be the centroid of the duct or at a point no closer to the walls than 1.0 meter (3.3 feet). The minimum sample volume shall be 0.003 dry standard cubic meter (dscm) (0.11 dry standard cubic feet (dscf)) except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(3) Method 2, 2A, 2C, or 2D, as appropriate, as the reference method for determination of the flow rate of the stack gas. The measurement site shall be the same as for the Method 25 sampling. A velocity traverse shall be made once per run within the hour that the Method 25 sample is taken.

(4) Method 4 for determination of stack gas moisture.

(5) Method 25 or Method 25A for determination of the VOC concentration in a capture system prior to a control device when only a single VOC is present (see § 60.543 (f)(2)(iv)(G) and (f)(2)(iv)(H)). The

owner or operator shall notify the Administrator at least 30 days in advance of any test by either Method 25 or Method 25A. Method 1 shall be used to select the sampling site and the sampling point shall be the centroid of the duct or at a point no closer to the walls than 1.0 meter (3.3 feet). Method 2, 2A, 2C, or 2D, as appropriate, shall be used as the test method for the concurrent determination of gas flow rate in the capture system.

(i) For Method 25, the sampling time for each run shall be at least 1 hour. For each run, a concurrent sample shall be taken immediately upwind of the application area to determine the background VOC concentration of air drawn into the capture system. Subtract this reading from the reading obtained in the capture system for that run. The minimum sample volume shall be 0.003 dry standard cubic meter (dscm) (0.11 dry standard cubic feet (dscf)) except that shorter sampling times or smaller volumes, when necessitated by process variable or other factors, may be approved by the Administrator. Use Method 3 to determine the moisture content of the stack gas.

(ii) For Method 25A, the sampling time for each run shall be at least 1 hour. Instrument calibration shall be performed by the procedure given in Method 25A using the single VOC present in the capture system. A different calibration gas may be used if the results are corrected using an experimentally determined response factor comparing the alternative calibration gas to the single VOC used in the process. After the instrument has been calibrated, determine the background VOC concentration of the air drawn into the capture system immediately upwind of the application area for each run. The instrument does not need to be recalibrated for the background measurement. Subtract this reading from the reading obtained in the capture system for that run. The Method 25A results shall only be used in the alternative procedure for determination of capture efficiency described under § 60.543(f)(2)(iv)(G).

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38638, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

§ 60.548 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: § 60.543(c)(2)(ii)(B).

Indiana Department of Environmental Quality
Office of Air Quality

Attachment C

Title 40: Protection of Environment

Part 63—National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq.\ 1)$$

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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:

$$F_o = \frac{0.209\ F_d}{F_c} \quad (Eq.\ 2)$$

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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, dsm^3 /J (dscf/10^6 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq.\ 3)$$

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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:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq.\ 4)$$

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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 1 a **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 1 b **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:

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

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 2 a **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 2 b **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:

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

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]

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:

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

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." is corrected to read "4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, 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.	
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]

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:

TABLE 2D TO SUBPART ZZZZ OF PART 63—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.	
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]	
	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	
	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]

Subsequent Performance Tests

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

TABLE 3 TO SUBPART ZZZZ OF PART 63—SUBSEQUENT PERFORMANCE TESTS

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	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests

4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources		semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
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, 63.6612, 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. 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, or ASTM Method D6522-00 (Reapproved 2005).[a c]	(a) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) [a b c] or Method 10 of 40 CFR part 60, appendix A	(a) The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i)	(a) sampling sites must be located at the inlet and outlet of the control device.

		ii. Measure O_2at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).[a]	(a) measurements to determine O_2concentration 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, or Test 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.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03,[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	(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 concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i)	(a) if using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).[a]	(a) measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A,	(a) measurements to determine moisture content must be made at the same time and

		sampling port location; and	or ASTM D 6348-03.[a]	location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03,[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 stationary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005),[a c]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] Incorporated by reference, see 40 CFR 63.14. You may also obtain copies from University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

[c] ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

[78 FR 6711, Jan. 30, 2013]

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:

TABLE 5 TO SUBPART ZZZZ OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS, OPERATING LIMITATIONS, AND OTHER REQUIREMENTS

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	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

located at an area source of HAP		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_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and

		iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, 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_2or CO_2at 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	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

more than 24 hours per calendar year		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:

TABLE 6 TO SUBPART ZZZZ OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS, AND OTHER REQUIREMENTS

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.
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.
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	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [a]; and

major source of HAP	oxidation catalyst or NSCR	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
		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
		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:

TABLE 7 TO SUBPART ZZZZ OF PART 63—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	i. Semiannually according to the requirements in § 63.6650(b).

		out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4).	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).
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.	
§ 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.
§ 63.8(d)	CMS quality control	Yes.	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
		Except that § 63.8(e) only applies as specified in § 63.6645.	
§ 63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that § 63.8(f)(4) only applies as specified in § 63.6645.
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that § 63.8(f)(6) only applies as specified in § 63.6645.
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§ 63.9(b)(1)-(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
		Except that § 63.9(b) only applies as specified in § 63.6645.	
§ 63.9(c)	Request for compliance extension	Yes	Except that § 63.9(c) only applies as specified in § 63.6645.
§ 63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that § 63.9(d) only applies as specified in § 63.6645.
§ 63.9(e)	Notification of performance test	Yes	Except that § 63.9(e) only applies as specified in § 63.6645.
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes	Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.

§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that § 63.9(g) only applies as specified in § 63.6645.	
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§ 63.10(b)(1)	Record retention	Yes	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											
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Refresh Phase											
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[78 FR 6721, Jan. 30, 2013]

Indiana Department of Environmental Management
Office of Air Quality

Attachment D

Title 40: Protection of the Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heater

SOURCE: 76 FR 15664, Mar. 21, 2011, unless otherwise noted.

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

[78 FR 7162, Jan. 31, 2013]

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in § 63.7575, located at a major source.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

(e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

(a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.

(b) A recovery boiler or furnace covered by subpart MM of this part.

(c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.

(d) A hot water heater as defined in this subpart.

(e) A refining kettle covered by subpart X of this part.

(f) An ethylene cracking furnace covered by subpart YY of this part.

(g) Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see § 63.14).

(h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.

(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.

(j) Temporary boilers as defined in this subpart.

(k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

(l) Any boiler specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.

(m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in § 63.1200(b) is not covered by Subpart EEE.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7491 was amended by revising paragraph (n). However, there is no paragraph (n) to revise.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by January 31, 2013, or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing source must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing source must be in compliance with this subpart within 3 years after the source becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in § 63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the switch from waste to fuel.

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.

(g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for a exemption in § 63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7495 was amended by adding paragraph (e). However, there is already a paragraph (e).

Emission Limitations and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters, as defined in § 63.7575 are:

(a) Pulverized coal/solid fossil fuel units.

(b) Stokers designed to burn coal/solid fossil fuel.

(c) Fluidized bed units designed to burn coal/solid fossil fuel.

(d) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solid.

(e) Fluidized bed units designed to burn biomass/bio-based solid.

(f) Suspension burners designed to burn biomass/bio-based solid.

(g) Fuel cells designed to burn biomass/bio-based solid.

(h) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(i) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solid.

(j) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(k) Units designed to burn liquid fuel that are non-continental units.

(l) Units designed to burn gas 1 fuels.

(m) Units designed to burn gas 2 (other) gases.

(n) Metal process furnaces.

(o) Limited-use boilers and process heaters.

(p) Units designed to burn solid fuel.

(q) Units designed to burn liquid fuel.

(r) Units designed to burn coal/solid fossil fuel.

(s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.

(t) Units designed to burn heavy liquid fuel.

(u) Units designed to burn light liquid fuel.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

§ 63.7500 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate steam. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate electricity. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (a)(1)(iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

(i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010 and before May 20, 2011, you may comply with the emission limits in Table 1 or 11 to this subpart until January 31, 2016.

(ii) If your boiler or process heater commenced construction or reconstruction after May 20, 2011 and before December 23, 2011, you may comply with the emission limits in Table 1 or 12 to this subpart until January 31, 2016.

(iii) If your boiler or process heater commenced construction or reconstruction after December 23, 2011 and before January 31, 2013, you may comply with the emission limits in Table 1 or 13 to this subpart until January 31, 2016.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under § 63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), 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 that 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) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in § 63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

§ 63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.

In response to an action to enforce the standards set forth in § 63.7500 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in § 63.7500 of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[78 FR 7163, Jan. 31, 2013]

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

(b) [Reserved]

(c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to § 63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in § 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-

specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.7525. Using the process described in § 63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c) (as applicable in Table 10 to this subpart), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7164, Jan. 31, 2013]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Tables 1 or 2 or 11 through 13 of this subpart through performance testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to § 63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to § 63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to § 63.7525.

(b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 or 11 through 13 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.

(c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to § 63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 12, or 11 through 13 to this subpart, as specified in § 63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with § 63.7520 and Table 5 to this subpart.

(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this

section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section.

(f) For new or reconstructed affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013 or within 180 days after startup of the source, whichever is later. If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent (that is, higher) than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than July 29, 2016.

(g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7540(a) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7540(a).

(h) For affected sources (as defined in § 63.7490) that ceased burning solid waste consistent with § 63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2013, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495.

[78 FR 7164, Jan. 31, 2013]

§ 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under § 63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury

input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 13 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 13 to this subpart).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to § 63.7521 for each type of fuel burned that is subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in § 63.7550.

(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra low sulfur liquid fuel, you do not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in § 63.7525(a)(3) of this subpart to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in § 63.7510(a).

[78 FR 7165, Jan. 31, 2013]

§ 63.7520 What stack tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in § 63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 13 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7166, Jan. 31, 2013]

§ 63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section and Table 6 to this subpart.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in § 63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.

(f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in § 63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.

(2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.

(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(h) You must obtain a single fuel sample for each fuel type according to the sampling procedures listed in Table 6 for fuel specification of gaseous fuels.

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

[78 FR 7167, Jan. 31, 2013]

§ 63.7522 Can I use emissions averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500 for PM (or TSM), HCl, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more than 90 percent of the applicable emission limit, according to the procedures in this section. You may not include new boilers or process heaters in an emissions average.

(b) For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average PM (or TSM), HCl, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 to this subpart as specified in paragraph (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c) through (g) of this section.

(1) You may average units using a CEMS or PM CPMS for demonstrating compliance.

(2) For mercury and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.

(iv) You may not average across the units designed to burn liquid, units designed to burn solid fuel, and units designed to burn gas 2 (other) subcategories.

(3) For PM (or TSM), averaging is only allowed between units within each of the following subcategories and you may not average across subcategories:

(i) Units designed to burn coal/solid fossil fuel.

(ii) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.

(iii) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(iv) Fluidized bed units designed to burn biomass/bio-based solid.

(v) Suspension burners designed to burn biomass/bio-based solid.

(vi) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(vii) Fuel Cells designed to burn biomass/bio-based solid.

(viii) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(ix) Units designed to burn heavy liquid fuel.

(x) Units designed to burn light liquid fuel.

(xi) Units designed to burn liquid fuel that are non-continental units.

(xii) Units designed to burn gas 2 (other) gases.

(c) For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on January 31, 2013 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on January 31, 2013.

(d) The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must not exceed 90 percent of the limits in Table 2 to this subpart at all times the affected units are operating following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section using the maximum rated heat input capacity or maximum steam generation capacity of each unit and the results of the initial performance tests or fuel analysis.

(1) You must use Equation 1a or 1b or 1c of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis, use Equation 1b if you are complying with the emission limits on a steam generation (output) basis, and use Equation 1c if you are complying with the emission limits on a electric generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq. 1a)}$$

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Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Hm = Maximum rated heat input capacity of unit, i, in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \qquad \text{(Eq.1b)}$$

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Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

So = Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \qquad \text{(Eq.1c)}$$

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Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

Eo = Maximum electric generating output capacity of unit, i, in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 of this section as an alternative to using Equation 1a of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 to this subpart that are in pounds per million Btu of heat input.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sm \times Cfi) \div \sum_{i=1}^{n} (Sm \times Cfi) \quad \text{(Eq. 2)}$$

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Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Sm = Maximum steam generation capacity by unit, i, in units of pounds per hour.

Cfi = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i.

1.1 = Required discount factor.

(f) After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in § 63.7495. If the affected source elects to collect monthly data for up the 11 months preceding the first monthly period, these additional data points can be used to compute the 12-month rolling average in paragraph (f)(3) of this section.

(1) For each calendar month, you must use Equation 3a or 3b or 3c of this section to calculate the average weighted emission rate for that month. Use Equation 3a and the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis. Use Equation 3c and the actual steam generation for the month if you are complying with the emission limits on a electrical generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \quad \text{(Eq. 3a)}$$

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Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Hb = The heat input for that calendar month to unit, i, in units of million Btu.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \quad \text{(Eq. 3b)}$$

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Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

So = The steam output for that calendar month from unit, i, in units of million Btu, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \quad \text{(Eq. 3c)}$$

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Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

Eo = The electric generating output for that calendar month from unit, i, in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3a of this section to calculate the average weighted emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sa \times Cfi) \div \sum_{i=1}^{n} (Sa \times Cfi) \quad \text{(Eq. 4)}$$

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Where:

AveWeightedEmissions = average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Sa = Actual steam generation for that calendar month by boiler, i, in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i.

1.1 = Required discount factor.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1) or (2) of this section for each calendar month. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 5 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$Eavg = \sum_{i=1}^{n} ERi \div 12 \quad \text{(Eq. 5)}$$

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Where:

Eavg = 12-month rolling average emission rate, (pounds per million Btu heat input)

ERi = Monthly weighted average, for calendar month “i” (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.

(g) You must develop, and submit upon request to the applicable Administrator for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of January 31, 2013 and the date on which you are requesting emission averaging to commence;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group;

(iii) The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;

(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device consistent with § 63.7500 and Table 4, and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions. Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(3) The Administrator shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing unit in the same subcategories.

(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing units in the same subcategories, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j) For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 of this section.

$$En = \sum_{i=1}^{n} (ELi \times Hi) \div \sum_{i=1}^{n} Hi \qquad \text{(Eq. 6)}$$

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Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).

ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.

Hi = Heat input from unit i, MMBtu.

(2) Conduct performance tests according to procedures specified in § 63.7520 in the common stack. If affected units and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and

(3) Meet the applicable operating limit specified in § 63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7168, Jan. 31, 2013]

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler or process heater is subject to a CO emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in § 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen according to the procedures in paragraphs (a)(1) through (7) of this section.

(1) Install the CO CEMS and oxygen analyzer by the compliance date specified in § 63.7495. The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater.

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, the site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in § 63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must be collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be at representative operating conditions.

(iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.

(iv) Any CO CEMS that does not comply with § 63.7525(a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Complete a minimum of one cycle of CO and oxygen CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen data concurrently. Collect at least four CO and oxygen CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(4) Reduce the CO CEMS data as specified in § 63.8(g)(2).

(5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for calculating the average CO concentration from the hourly values.

(6) For purposes of collecting CO data, operate the CO CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS. If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

(1) Install, certify, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(ii) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable of detecting and responding to PM concentrations of no greater than 0.5 milligram per actual cubic meter.

(2) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Collect PM CPMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d). Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output data collected during all boiler or process heater operating hours (milliamps).

(5) Install, certify, operate, and maintain your PM CEMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(5)(i) through (iv) of this section.

(i) You shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of § 60.8(e), and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.

(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, you shall collect PM and oxygen (or carbon dioxide) data concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using Method 5 at 40 CFR part 60, appendix A-3 or Method 17 at 40 CFR part 60, appendix A-6 of this chapter.

(iii) You shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. You must perform Relative Response Audits annually and perform Response Correlation Audits every 3 years.

(iv) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to the EPA by successfully submitting the data electronically into the EPA's Central Data Exchange by using the Electronic Reporting Tool (see *http://www.epa.gov/ttn/chief/ert/erttool.html/*).

(6) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(7) Collect PM CEMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d).

(8) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all boiler or process heater operating hours.

(c) If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of this chapter.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8(e) and according to Performance Specification 1 at appendix B to part 60 of this chapter.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(7) You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in § 63.7535(b), and comply with the data calculation requirements specified in § 63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in § 63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in § 63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

(e) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (d) and (e)(1) through (4) of this section.

(1) You must install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the design flow rate.

(3) You must minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) You must conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(f) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (d) and (f)(1) through (6) of this section.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.* , PM scrubber pressure drop).

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices.

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.* , check for pressure tap pluggage daily).

(5) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in you monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(g) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (d) and (g)(1) through (4) of this section.

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(h) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(i) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.

(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.

(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

(k) For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Tables 1 or 2 or 11 through 13 of this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the date a final performance specification for a HCl CEMS is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in § 63.7540(a)(14) for a mercury CEMS and § 63.7540(a)(15) for a HCl CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.

(i) No later than July 30, 2013.

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.

(i) No later than July 29, 2016.

(ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.

(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.

(8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide (SO_2) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.

(m) If your unit is subject to a HCl emission limit in Tables 1, 2, or 11 through 13 of this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you use an SO_2 CEMS, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to part 75 of this chapter.

(1) The SO_2 CEMS must be installed by the compliance date specified in § 63.7495.

(2) For on-going quality assurance (QA), the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less.

(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.

(4) For purposes of collecting SO_2 data, you must operate the SO_2 CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when SO_2 data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.

(6) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7171, Jan. 31, 2013]

§ 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to § 63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by § 63.7510(a)(2)(i). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to § 63.7525.

(b) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in § 63.7510(a)(2). (Note that § 63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (Clinput) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section.

$$Clinput = \sum_{i=1}^{n} (Ci \times Qi) \quad \text{(Eq. 7)}$$

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Where:

Clinput = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HGi).

(iii) You must establish a maximum mercury input level using Equation 8 of this section.

$$Mercuryinput = \sum_{i=1}^{n} (HGi \times Qi) \qquad \text{(Eq. 8)}$$

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Where:

Mercuryinput = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSMi).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

$$TSMinput = \sum_{i=1}^{n} (TSMi \times Qi) \qquad \text{(Eq. 9)}$$

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Where:

TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSMi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i) For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH and liquid flow rate as defined in § 63.7575, as your operating limits during the performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for HCl and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flow rate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate operating limit at the higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your PM CPMS operating limit and determine compliance with it according to paragraphs (b)(4)(ii)(A) through (F) of this section.

(A) Determine your operating limit as the average PM CPMS output value recorded during the most recent performance test run demonstrating compliance with the filterable PM emission limit or at the PM CPMS output value corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(*1*) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(*2*) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(*3*) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(B) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs (b)(4)(ii)(B)(*1*) through (*4*) of this section.

(*1*) Determine your instrument zero output with one of the following procedures:

(*i*) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(*ii*) Zero point data for *extractive* instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(*iii*) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(*iv*) If none of the steps in paragraphs (b)(4)(ii)(B)(*1*)(*i*) through (*iii*) of this section are possible, you must use a zero output value provided by the manufacturer.

(*2*) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 10.

$$\bar{X} = \frac{1}{n}\sum_{i=1}^{n} X_1 , \bar{Y} = \frac{1}{n}\sum_{i=1}^{n} Y_1 \qquad \text{(Eq. 10)}$$

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Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test,

Y_1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(*3*) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/MMBtu per milliamp with equation 11.

$$R = \frac{Y_1}{(X_1 - z)} \qquad \text{(Eq. 11)}$$

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Where:

R = the relative lb/MMBtu per milliamp for your PM CPMS,

Y_1 = the three run average lb/MMBtu PM concentration,

X_1 = the three run average milliamp output from you PM CPMS, and

z = the milliamp equivalent of your instrument zero determined from (B)(i).

(*4*) Determine your source specific 30-day rolling average operating limit using the lb/MMBtu per milliamp value from Equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_l = z + \frac{0.78(L)}{R} \qquad \text{(Eq. 12)}$$

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Where:

O_l = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = your source emission limit expressed in lb/MMBtu,

z = your instrument zero in milliamps, determined from (B)(i), and

R = the relative lb/MMBtu per milliamp for your PM CPMS, from Equation 11.

(C) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your 30-day rolling average operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13 and you must submit all compliance test and PM CPMS data according to the reporting requirements in paragraph (b)(4)(ii)(F) of this section.

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 13)}$$

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Where:

X_1 = the PM CPMS data points for all runs i,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(D) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new operating hour. Use Equation 14 to determine the 30-day rolling average.

$$30-\text{day} = \frac{\sum_{i=1}^{n} Hpvi}{n} \qquad \text{(Eq. 14)}$$

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Where:

30-day = 30-day average.

Hpvi = is the hourly parameter value for hour i

n = is the number of valid hourly parameter values collected over the previous 720 operating hours.

(E) Use EPA Method 5 of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume specified in Tables 1, 2, or 11 through 13 to this subpart, as applicable, for determining compliance with a new source limit or an existing source limit. Calculate the average of the results from three runs to determine compliance. You need not determine the PM collected in the impingers ("back half") of the Method 5 particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(F) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. (iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in § 63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for PM and TSM emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iii) For an electrostatic precipitator (ESP) operated with a wet scrubber, you must establish the minimum total secondary electric power input, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit. (These operating limits do not apply to ESP that are operated as dry controls without a wet scrubber.)

(iv) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(v) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vi) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alert is not activated more than 5 percent of the operating time during a 6-month period.

(vii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(viii) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO_2 CEMS is to install and operate the SO_2 according to the requirements in § 63.7525(m) establish a maximum SO_2 emission rate equal to the highest hourly average SO_2 measurement during the most recent three-run performance test for HCl.

(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section.

$$P90 = mean + (SD \times t) \quad \text{(Eq. 15)}$$

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Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile ($t_{0.1}$) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n} (Ci90 \times Qi \times 1.028) \quad \text{(Eq. 16)}$$

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Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n} (Hgi90 \times Qi) \quad \text{(Eq. 17)}$$

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Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM.

$$Metals = \sum_{i=1}^{n} (TSM90i \times Qi) \quad \text{(Eq. 18)}$$

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Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

TSMi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d) If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit.

(e) You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment.

(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in § 63.7575, you must conduct an initial fuel specification analyses according to § 63.7521(f) through (i) and according to the frequency listed in § 63.7540(c) and maintain records of the results of the testing as outlined in § 63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

(h) If you own or operate a unit subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart, you must meet the work practice standard according to Table 3 of this subpart. During startup and shutdown, you must only follow the work practice standards according to item 5 of Table 3 of this subpart.

(i) If you opt to comply with the alternative SO_2 CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:

(1) Has a system using wet scrubber or dry sorbent injection and SO_2 CEMS installed on the unit; and

(2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with § 63.7500(a)(3); and

(3) You establish a unit-specific maximum SO_2 operating limit by collecting the minimum hourly SO_2 emission rate on the SO_2 CEMS during the paired 3-run test for HCl. The maximum SO_2 operating limit is equal to the highest hourly average SO_2 concentration measured during the most recent HCl performance test.

[76 FR 15664, Mar. 21, 2013, as amended at 78 FR 7174, Jan. 31, 2013]

§ 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?

(a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to § 63.7522(e) and for demonstrating monthly compliance according to § 63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at: *http://www.epa.gov/ttn/atw/boiler/boilerpg.html* .

(b) For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (*i.e.,* fuel usage) according to paragraphs (b)(1) through (4) of this section. The benchmark shall be expressed in trillion Btu per year heat input.

(1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

(2) Determine the starting point from which to measure progress. Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).

(3) Document all uses of energy from the affected boiler. Use the most recent data available.

(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.

(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1) The following emission points cannot be used to generate efficiency credits:

(i) Energy conservation measures implemented on or before January 1, 2008, unless the level of energy demand reduction is increased after January 1, 2008, in which case credit will be allowed only for change in demand reduction achieved after January 1, 2008.

(ii) Efficiency credits on shut-down boilers. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. In this case, the bench established for the affected boiler to which the credits from the shutdown will be applied must be revised to include the benchmark established for the shutdown boiler.

(2) For all points included in calculating emissions credits, the owner or operator shall:

(i) Calculate annual credits for all energy demand points. Use Equation 19 to calculate credits. Energy conservation measures that meet the criteria of paragraph (c)(1) of this section shall not be included, except as specified in paragraph (c)(1)(i) of this section.

(3) Credits are generated by the difference between the benchmark that is established for each affected boiler, and the actual energy demand reductions from energy conservation measures implemented after January 1, 2008. Credits shall be calculated using Equation 19 of this section as follows:

(i) The overall equation for calculating credits is:

$$ECredits = \left(\sum_{i=1}^{n} EIS_{iactual} \right) \div EI_{baseline} \quad \text{(Eq. 19)}$$

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Where:

ECredits = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

$EIS_{iactual}$ = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

$EI_{baseline}$ = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the efficiency credit for the affected boiler.

(ii) [Reserved]

(d) The owner or operator shall develop, and submit for approval upon request by the Administrator, an Implementation Plan containing all of the information required in this paragraph for all boilers to be included in an efficiency credit approach. The Implementation Plan shall identify all existing affected boilers to be included in applying the efficiency credits. The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. If requested, you must submit the implementation plan for efficiency credits to the Administrator for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the efficiency credit approach.

(e) The emissions rate as calculated using Equation 20 of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 to this subpart at all times the affected unit is operating, following the compliance date specified in § 63.7495.

(f) You must use Equation 20 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 to this subpart.

$$E_{adj} = E_m \times (1 - ECredits) \quad \text{(Eq. 20)}$$

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Where:

E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.

E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.

ECredits = Efficiency credits from Equation 19 for the affected boiler.

(g) As part of each compliance report submitted as required under § 63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7178, Jan. 21, 2013]

Continuous Compliance Requirements

§ 63.7535 Is there a minimum amount of monitoring data I must obtain?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see § 63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor

maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your annual report.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7179, Jan. 31, 2013]

§ 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in § 63.7550(c), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl

emission rate using Equation 12 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 12 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of § 63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in § 63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 13 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 13 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 8 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Tables 1, 2, or 11 through 13 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 or 11 through 13 to this subpart at all times the affected unit is operating.

(iii) Keep records of CO levels according to § 63.7555(b).

(iv) You must record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with your site-specific monitoring plan.

(9) The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in § 63.7505(d).

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. This frequency does not apply to limited-use boilers and process heaters, as defined in § 63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(14) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure HCl emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the HCl CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date a final performance specification for an HCl CEMS is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a HCl CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the HCl mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of § 63.7530. If the results of recalculating the maximum TSM input using Equation 9 of § 63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 14 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 14 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) If you demonstrate continuous PM emissions compliance with a PM CPMS you will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using the test method criteria in Table 5 of this subpart. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(i) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating

hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new boiler or process heater operating hour.

(ii) For any deviation of the 30-day rolling PM CPMS average value from the established operating parameter limit, you must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device (APCD);

(B) If inspection of the APCD identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(iii) PM CPMS deviations from the operating limit leading to more than four required performance tests in a 12-month operating period constitute a separate violation of this subpart.

(19) If you choose to comply with the PM filterable emissions limit by using PM CEMS you must install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (a)(19)(i) through (vii) of this section. The compliance limit will be expressed as a 30-day rolling average of the numerical emissions limit value applicable for your unit in Tables 1 or 2 or 11 through 13 of this subpart.

(i) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using test criteria outlined in Table V of this rule. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(ii) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2— Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(A) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(B) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(iii) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section.

(iv) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler or process heater operating hours.

(v) You must collect data using the PM CEMS at all times the unit is operating and at the intervals specified this paragraph (a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(vi) You must use all the data collected during all boiler or process heater operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(vii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in § 63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in § 63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in § 63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in § 63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to item 5 of Table 3 of this subpart.

[78 FR 7179, Jan. 31, 2013]

§ 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in § 63.7522(f) and (g).

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.

(i) For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.

(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.

(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.

(5) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.

[76 FR 15664, Mar. 21, 2013, as amended at 78 FR 7182, Jan. 31, 2013]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.

(c) As specified in § 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:

(i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.

(ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,

(3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Tables 1, 2, or 11 through 13 to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using efficiency credits through energy conservation:

(i) If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.

(ii) [Reserved]

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

(8) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) “This facility complies with the required initial tune-up according to the procedures in § 63.7540(a)(10)(i) through (vi).”

(ii) “This facility has had an energy assessment performed according to § 63.7530(e).”

(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: “No secondary materials that are solid waste were combusted in any affected unit.”

(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

(g) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(h) If you have switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon

which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date upon which the fuel switch or physical change occurred.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7183, Jan. 31, 2013]

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section.

(2) If a facility is complying with the fuel analysis they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) and paragraph (d) of this section.

(3) If a facility is complying with the applicable emissions limit with performance testing they must submit a compliance report with the information in (c)(5)(i) through (iv), (vi), (vii), (ix), (xi), (xiii), (xv) and paragraph (d) of this section.

(4) If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), (xv) through (xvii), and paragraph (e) of this section.

(5)(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with § 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 12 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 13 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 14 of § 63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of § 63.7530 or the maximum mercury input operating limit using Equation 8 of § 63.7530, or the maximum TSM input operating limit using Equation 9 of § 63.7530 you must include in

the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§ 63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§ 63.7521(f) and 63.7530(g).

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(xiii) If a malfunction occurred during the reporting period, the 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 you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with § 63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xv) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in § 63.7545(e)(5)(i).

(xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values based on the daily CEMS (CO and mercury) and CPMS (PM CPMS output, scrubber pH, scrubber liquid flow rate, scrubber pressure drop) data.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.

(1) A description of the deviation and which emission limit or operating limit from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time 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.

(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 characterization 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's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f)-(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart and the compliance reports required in § 63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For

any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

(2) Within 60 days after the date of completing each CEMS performance evaluation test (defined in 63.2) you must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange by using CEDRI as mentioned in paragraph (h)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

(3) You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the 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 report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[78 FR 7183, Jan. 31, 2013]

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) 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 or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vii) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in § 241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under § 241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(4) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 12 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(6) If, consistent with § 63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(7) Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(8) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the

malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(9) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 14 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(10) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(11) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(e) If you elect to average emissions consistent with § 63.7522, you must additionally keep a copy of the emission averaging implementation plan required in § 63.7522(g), all calculations required under § 63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with § 63.7541.

(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533, you must keep a copy of the Implementation Plan required in § 63.7533(d) and copies of all data and calculations used to establish credits according to § 63.7533(b), (c), and (f).

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by § 63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

(i) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(j) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[76 FR 15664, Mar. 21, 2011 as amended at 78 FR 715, Jan. 31, 2013]

§ 63.7560 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 on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the EPA, or an Administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the EPA) 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 listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency, however, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, and alternative analytical methods requested under § 63.7521(b)(2).

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90, and approval of alternative operating parameters under § 63.7500(a)(2) and § 63.7522(g)(2).

(5) Approval of major change to recordkeeping and reporting under § 63.10(e) and as defined in § 63.90.

[76 FR 15664, Mar. 21, 2011 as amended at 78 FR 7186, Jan. 31, 2013]

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

10-day rolling average means the arithmetic mean of the previous 240 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting

repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 240 hours should be consecutive, but not necessarily continuous if operations were intermittent.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Average annual heat input rate means total heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Benchmark means the fuel heat input for a boiler or process heater for the one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

Biomass or bio-based solid fuel means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue; wood products (*e.g.,* trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.,* almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total annual gas volume from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control systems, steam systems, and condensate return systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

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 (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, governmental buildings, hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Cost-effective energy conservation measure means a measure that is implemented to improve the energy efficiency of the boiler or facility that has a payback (return of investment) period of 2 years or less.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown or downtime.

Deviation. (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) 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.

(2) A deviation is not always a violation.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 60.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. Fuel materials are introduced through an opening in the roof of the dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.

Efficiency credit means emission reductions above those required by this subpart. Efficiency credits generated may be used to comply with the emissions limits. Credits may come from pollution prevention projects that result in reduced fuel use by affected units. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to implementation of the energy conservation measures identified in the energy assessment.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2012.

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

Energy assessment means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of less than 0.3 trillion Btu (TBtu) per year will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment.

(2) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of 0.3 to 1.0 TBtu/year will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the energy (e.g., steam, hot water,

process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour on-site energy assessment.

(3) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity greater than 1.0 TBtu/year will be up to 24 on-site technical labor hours in length for the first TBtu/yr plus 8 on-site technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 20 percent of the energy (e.g., steam, process heat, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy production in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).

Energy management practices means the set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility.

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system includes the following systems located on-site that use energy (steam, hot water, or electricity) provided by the affected boiler or process heater: process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelop; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater. Energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

Equivalent means the following only as this term is used in Table 6 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an “as received” basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed boiler with an integrated fluidized bed heat exchanger means a boiler utilizing a fluidized bed combustion where the entire tube surface area is located outside of the furnace section at the exit of the cyclone section and exposed to the flue gas stream for conductive heat transfer. This design applies only to boilers in the unit designed to burn coal/solid fossil fuel subcategory that fire coal refuse.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas and process gases that are regulated under another subpart of this part, or part 60, part 61, or part 65 of this chapter, are exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy liquid includes residual oil and any other liquid fuel not classified as a light liquid.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Light liquid includes distillate oil, biodiesel, or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, light liquid, heavy liquid, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, biodiesel, vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

Major source for oil and natural gas production facilities, 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) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and

(3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels with the potential for flash emissions shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Metal process furnaces are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

Million Btu (MMBtu) means one million British thermal units.

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum pressure drop means the lowest hourly average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent injection rate means:

(1) The load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits; or

(2) For fluidized bed combustion, the lowest average ratio of sorbent to sulfur measured during the most recent performance test.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

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 gas, as defined in ASTM D1835 (incorporated by reference, see § 63.14); 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 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3 H_8$.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler or process heater unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum concentration of 40 micrograms/cubic meters of mercury.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

Pulverized coal boiler means a boiler in which pulverized coal or other solid fossil fuel is introduced into an air stream that carries the coal to the combustion chamber of the boiler where it is fired in suspension.

Qualified energy assessor means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vi) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

Refinery gas means any gas that is generated at a petroleum refinery and is combusted. Refinery gas includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. Refinery gas includes gases generated from other facilities when that gas is combined and combusted in any proportion with gas generated at a refinery.

Regulated gas stream means an offgas stream that is routed to a boiler or process heater for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

(1) A dwelling containing four or fewer families; or

(2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

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 of Testing and Materials in ASTM D396-10 (incorporated by reference, *see* § 63.14(b)).

Responsible official means responsible official as defined in § 70.2.

Secondary material means the material as defined in § 241.2 of this chapter.

Shutdown means the cessation of operation of a boiler or process heater for any purpose. Shutdown begins either when none of the steam from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler or process heater, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler or process heater.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose.

Steam output means:

(1) For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output,

(2) For a boiler that cogenerates process steam and electricity (also known as combined heat and power), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per megawatt-hour), and

(3) For a boiler that generates only electricity, the alternate output-based emission limits would be calculated using Equations 21 through 25 of this section, as appropriate:

(i) For emission limits for boilers in the unit designed to burn solid fuel subcategory use Equation 21 of this section:

$$EL_{OBE} = EL_T \times 12.7 \text{ MMBtu/Mwh} \quad \text{(Eq. 21)}$$

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Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(ii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal use Equation 22 of this section:

$$EL_{OBE} = EL_T \times 12.2 \text{ MMBtu/Mwh} \quad \text{(Eq. 22)}$$

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Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass use Equation 23 of this section:

$$EL_{OBE} = EL_T \times 13.9 \text{ MMBtu/Mwh} \quad \text{(Eq. 23)}$$

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Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iv) For emission limits for boilers in one of the subcategories of units designed to burn liquid fuels use Equation 24 of this section:

$$EL_{OBE} = EL_T \times 13.8 \text{ MMBtu/Mwh} \quad \text{(Eq. 24)}$$

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Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(v) For emission limits for boilers in the unit designed to burn gas 2 (other) subcategory, use Equation 25 of this section:

$$EL_{OBE} = EL_T \times 10.4 \text{ MMBtu/Mwh} \quad \text{(Eq. 25)}$$

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Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. This definition of stoker includes air swept stokers. There are two general types of stokers: Underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture on an annual heat input basis.

Suspension burner means a unit designed to fire dry biomass/biobased solid particles in suspension that are conveyed in an airstream to the furnace like pulverized coal. The combustion of the fuel material is completed on a grate or floor below. The biomass/biobased fuel combusted in the unit shall not exceed 20 percent moisture on an annual heat input basis. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler that 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 boiler is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. 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 within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Total selected metals (TSM) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Traditional fuel means the fuel as defined in § 241.2 of this chapter.

Tune-up means adjustments made to a boiler or process heater in accordance with the procedures outlined in § 63.7540(a)(10).

Ultra low sulfur liquid fuel means a distillate oil that has less than or equal to 15 ppm sulfur.

Unit designed to burn biomass/bio-based solid subcategory includes any boiler or process heater that burns at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Unit designed to burn coal/solid fossil fuel subcategory includes any boiler or process heater that burns any coal or other solid fossil fuel alone or at least 10 percent coal or other solid fossil fuel on an annual heat input basis in combination with liquid fuels, gaseous fuels, or less than 10 percent biomass and bio-based solids on an annual heat input basis.

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, and no liquid fuels. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel during periods of gas curtailment or gas supply interruption of any duration are also included in this definition.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, either alone or in combination with gaseous fuels. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are not included in this definition. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories during periods of gas curtailment or gas supply interruption of any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental unit means an industrial, commercial, or institutional boiler or process heater meeting the definition of the unit designed to burn liquid subcategory located in the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any boiler or process heater that burns only solid fuels or at least 10 percent solid fuel on an annual heat input basis in combination with liquid fuels or gaseous fuels.

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards or VCS mean technical standards (*e.g.,* materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, *http://www.astm.org*), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, *http://www.asme.org*), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, *http://www.iso.org/iso/home.htm*), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171

http://www.stadards.org.au), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, *http://www.bsigroup.com*), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, *http://www.csa.ca*), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, *http://www.cen.eu/cen*), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, *http://www.vdi.eu*). The types of standards that are not considered VCS are standards developed by: The United States, *e.g.,* California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.,* Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Waste heat process heater means an enclosed device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat process heaters are also referred to as recuperative process heaters. This definition includes both fired and unfired waste heat process heaters.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

[5664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]

Table 1 to Subpart DDDDD of Part 63—Emission Limits for New or Reconstructed Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	**For the following pollutants . . .**	**The emissions must not exceed the following emission limits, except during startup and shutdown . . .**	**Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .**	**Using this specified sampling volume or test run duration . . .**
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.28 lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E-07 [a]lb per MMBtu of heat input	8.7E-07 [a]lb per MMBtu of steam output or 1.1E-05 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Units designed to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	1.1E-03 lb per MMBtu of steam output or 1.4E-02 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 2.9E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

		average)		
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	5.8E-01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 3.7E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (4.2E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.2E-01 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 0.14 lb per MWh; or (1.1E-04 [a]lb per MMBtu of steam output or 1.2E-03 [a]lb per MWh)	Collect a minimum of 3 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.

		corrected to 3 percent oxygen, 10-day rolling average)		
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	3.1E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	3.5E-01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	4.3E-03 lb per MMBtu of steam output or 4.5E-02 lb per MWh; or (5.2E-05 lb per MMBtu of steam output or 5.5E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 [a]lb per MMBtu of heat input)	3.0E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (5.1E-05 lb per MMBtu of steam output or 4.1E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	3.3E-02 lb per MMBtu of steam output or 3.7E-01 lb per MWh; or (5.5E-04 lb per MMBtu of steam output or 6.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	4.8E-04 lb per MMBtu of steam output or 6.1E-03 lb per MWh	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.

	b. Mercury	4.8E-07 [a]lb per MMBtu of heat input	5.3E-07 [a]lb per MMBtu of steam output or 6.7E-06 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	1.5E-02 lb per MMBtu of steam output or 1.8E-01 lb per MWh; or (8.2E-05 lb per MMBtu of steam output or 1.1E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	1.2E-03 [a]lb per MMBtu of steam output or 1.6E-02 [a]lb per MWh; or (3.2E-05 lb per MMBtu of steam output or 4.0E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.5E-02 lb per MMBtu of steam output or 3.2E-01 lb per MWh; or (9.4E-04 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.

	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[c] If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before January 31, 2013, you may comply with the emission limits in Tables 11, 12 or 13 to this subpart until January 31, 2016. On and after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

[78 FR 7193, Jan. 31, 2013]

Table 2 to Subpart DDDDD of Part 63—Emission Limits for Existing Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	**For the following pollutants . . .**	**The emissions must not exceed the following emission limits, except during startup and shutdown . . .**	**The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .**	**Using this specified sampling volume or test run duration . . .**
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.27 lb per MWh	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.
	b. Mercury	5.7E-06 lb per MMBtu of heat input	6.4E-06 lb per MMBtu of steam output or 7.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	4.0E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)	4.2E-02 lb per MMBtu of steam output or 4.9E-01 lb per MWh; or (5.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)	Collect a minimum of 2 dscm per run.

3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	160 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.7E-02 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input)	4.3E-02 lb per MMBtu of steam output or 5.2E-01 lb per MWh; or (2.8E-04 lb per MMBtu of steam output or 3.4E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.7E-01 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.6E-03 lb per MMBtu of steam output or 5.6E-	Collect a minimum of 1 dscm per run.

			02 lb per MWh)	
9. Fluidized bed units designed to burn biomass/bio-based solid	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	4.6E-01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-01 lb per MMBtu of heat input; or (1.2E-03 lb per MMBtu of heat input)	1.4E-01 lb per MMBtu of steam output or 1.6 lb per MWh; or (1.5E-03 lb per MMBtu of steam output or 1.7E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	5.2E-02 lb per MMBtu of steam output or 7.1E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	8.4E-01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)	3.9E-01 lb per MMBtu of steam output or 3.9 lb per MWh; or (2.8E-03 lb per MMBtu of steam output or 2.8E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid	a. CO	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen	2.4 lb per MMBtu of steam output or 12 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)	5.5E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (1.6E-02 lb per MMBtu of steam output or 8.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.

13. Hybrid suspension grate units designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,800 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.8 lb per MMBtu of steam output or 31 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)	5.5E-01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E-04 lb per MMBtu of steam output or 6.3E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.1E-03 lb per MMBtu of heat input	1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	2.0E-06 lb per MMBtu of heat input	2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 [b]collect a minimum of 2 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)	7.5E-02 lb per MMBtu of steam output or 8.6E-01 lb per MWh; or (2.5E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)	9.6E-03 lb per MMBtu of steam output or 1.1E-01 lb per MWh; or (7.5E-05 lb per MMBtu of steam output or 8.6E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.7E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	3.3E-01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E-	Collect a minimum of 2 dscm per run.

			03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 2 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7195, Jan. 31, 2013]

Table 3 to Subpart DDDDD of Part 63—Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your unit is . . .	**You must meet the following . . .**
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater	Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.
2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10	Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.

million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid	
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
4. An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup	You must operate all CMS during startup. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, and liquefied petroleum gas.

	If you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, selective non-catalytic reduction (SNCR), and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose.
	You must comply with all applicable emission limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of startup, as specified in § 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in § 63.7555.
6. An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown	You must operate all CMS during shutdown. While firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR.
	You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in § 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in § 63.7555.

[78 FR 7198, Jan. 31, 2013]

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters

As stated in § 63.7500, you must comply with the applicable operating limits:

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	**You must meet these operating limits . . .**
1. Wet PM scrubber control on a boiler not using a PM CPMS	Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation according to § 63.7530(b) and Table 7 to this subpart.
2. Wet acid gas (HCl) scrubber control on a boiler not using a HCl CEMS	Maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation according to § 63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on units not using a PM CPMS	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); or

	b. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on units not using a PM CPMS	a. This option is for boilers and process heaters that operate dry control systems (i.e., an ESP without a wet scrubber). Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average); or
	b. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (i.e., COMS). Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(b) and Table 7 to this subpart.
5. Dry scrubber or carbon injection control on a boiler not using a mercury CEMS	Maintain the minimum sorbent or carbon injection rate as defined in § 63.7575 of this subpart.
6. Any other add-on air pollution control type on units not using a PM CPMS	This option is for boilers and process heaters that operate dry control systems. Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average).
7. Fuel analysis	Maintain the fuel type or fuel mixture such that the applicable emission rates calculated according to § 63.7530(c)(1), (2) and/or (3) is less than the applicable emission limits.
8. Performance testing	For boilers and process heaters that demonstrate compliance with a performance test, maintain the operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test.
9. Oxygen analyzer system	For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O_2analyzer system as specified in § 63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a).
10. SO_2CEMS	For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO_2CEMS, maintain the 30-day rolling average SO_2emission rate at or below the highest hourly average SO_2concentration measured during the most recent HCl performance test, as specified in Table 8.

[78 FR 7199, Jan. 31, 2013]

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant...	**You must...**	**Using...**
1. Filterable PM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.
	c. Determine oxygen or	Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60

	carbon dioxide concentration of the stack gas	of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the PM emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, appendix A-3 or A-6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
2. TSM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the TSM emission concentration	Method 29 at 40 CFR part 60, appendix A-8 of this chapter
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
3. HCl	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the HCl emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.

	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784.[a]
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
5. CO	a. Select the sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine oxygen concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005), or ANSI/ASME PTC 19.10-1981.[a]
	c. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	d. Measure the CO emission concentration	Method 10 at 40 CFR part 60, appendix A-4 of this chapter. Use a measurement span value of 2 times the concentration of the applicable emission limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7200, Jan. 31, 2013]

Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods (as defined in § 63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or EPA 1631 or EPA 1631E or ASTM D6323 [a](for solid), or EPA 821-R-01-013 (for liquid or solid), or ASTM D4177 [a](for liquid), or ASTM D4057 [a](for liquid), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a](for biomass), or EPA 3050 [a](for solid fuel), or EPA 821-R-01-013 [a](for liquid or solid), or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a], ASTM E871 [a], or ASTM D5864 [a], or ASTM D240, or ASTM D95 [a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 [a](for coal), EPA SW-846-7471B [a](for solid samples), or EPA SW-846-7470A [a](for liquid samples), or equivalent.
	g. Convert concentration into units of pounds of mercury per MMBtu of heat content	Equation 8 in § 63.7530.
	h. Calculate the mercury emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 12 in § 63.7530.
2. HCl	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M§[a](for coal), or ASTM D5198§[a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), ASTM D5864, ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864 [a], or ASTM D240 [a], or ASTM D95[a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for

		liquid fuels) or equivalent.
	f. Measure chlorine concentration in fuel sample	EPA SW-846-9250 [a], ASTM D6721 [a], ASTM D4208 [a](for coal), or EPA SW-846-5050 [a]or ASTM E776 [a](for solid fuel), or EPA SW-846-9056 [a]or SW-846-9076 [a](for solids or liquids) or equivalent.
	g. Convert concentrations into units of pounds of HCl per MMBtu of heat content	Equation 7 in § 63.7530.
	h. Calculate the HCl emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 11 in § 63.7530.
3. Mercury Fuel Specification for other gas 1 fuels	a. Measure mercury concentration in the fuel sample and convert to units of micrograms per cubic meter	Method 30B (M30B) at 40 CFR part 60, appendix A-8 of this chapter or ASTM D5954 [a], ASTM D6350 [a], ISO 6978-1:2003(E) [a], or ISO 6978-2:2003(E) [a], or EPA-1631 [a]or equivalent.
	b. Measure mercury concentration in the exhaust gas when firing only the other gas 1 fuel is fired in the boiler or process heater	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A or Method 102 at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784 [a]or equivalent.
4. TSM for solid fuels	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), or ASTM D4177 [a],(for liquid fuels)or ASTM D4057 [a](for liquid fuels),or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a]or TAPPI T266 [a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864, or ASTM D240 [a], or ASTM D95 [a](for liquid fuels), or ASTM D4006[a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure TSM concentration in fuel sample	ASTM D3683 [a], or ASTM D4606 [a], or ASTM D6357 [a]or EPA 200.8 [a]or EPA SW-846-6020 [a], or EPA SW-846-6020A [a], or EPA SW-846-6010C [a], EPA 7060 [a]or EPA 7060A [a](for arsenic only), or EPA SW-846-7740 [a](for selenium only).
	g. Convert concentrations into units of pounds of TSM per MMBtu of heat content	Equation 9 in § 63.7530.
	h. Calculate the TSM emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 13 in § 63.7530.

[a] Incorporated by reference, see § 63.14.
[78 FR 7201, Jan. 31, 2013]

Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	**And your operating limits are based on . . .**	**You must . . .**	**Using . . .**	**According to the following requirements**
1. PM, TSM, or mercury	a. Wet scrubber operating parameters	i. Establish a site-specific minimum scrubber pressure drop and minimum flow rate operating limit according to § 63.7530(b)	(1) Data from the scrubber pressure drop and liquid flow rate monitors and the PM or mercury performance test	(a) You must collect scrubber pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the lowest hourly average scrubber pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum total secondary electric power input according to § 63.7530(b)	(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests.
				(b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
2. HCl	a. Wet scrubber operating parameters	i. Establish site-specific minimum pressure drop, effluent pH, and flow rate operating limits according to § 63.7530(b)	(1) Data from the pressure drop, pH, and liquid flow-rate monitors and the HCl performance test	(a) You must collect pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average pH and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(b). If different acid gas sorbents are used during the HCl performance test,	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests.

		the average value for each sorbent becomes the site-specific operating limit for that sorbent		
				(b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
	c. Alternative Maximum SO_2emission rate	i. Establish a site-specific maximum SO_2emission rate operating limit according to § 63.7530(b)	(1) Data from SO_2CEMS and the HCl performance test	(a) You must collect the SO_2emissions data according to § 63.7525(m) during the most recent HCl performance tests.
				(b) The maximum SO_2emission rate is equal to the lowest hourly average SO_2emission rate measured during the most recent HCl performance tests.
3. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to § 63.7530(b)	(1) Data from the activated carbon rate monitors and mercury performance test	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your operating limit. When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
4. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to	(1) Data from the oxygen analyzer system specified	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests.

		§ 63.7520	in § 63.7525(a)	
				(b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test	a. Boiler or process heater operating load	i. Establish a unit specific limit for maximum operating load according to § 63.7520(c)	(1) Data from the operating load monitors or from steam generation monitors	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test.
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7203, Jan. 31, 2013]

Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance

As stated in § 63.7540, you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

If you must meet the following operating limits or work practice standards . . .	**You must demonstrate continuous compliance by . . .**
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.7525(c) and § 63.7535; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).
2. PM CPMS	a. Collecting the PM CPMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to § 63.7530(b)(4).
3. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
4. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(b).
5. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pH at or above the operating limit established during the performance test according to § 63.7530(b).
6. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in § 63.7575.
7. Electrostatic Precipitator Total Secondary Electric Power Input	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limits established during the performance test according to § 63.7530(b).
8. Emission limits using fuel analysis	a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and
	b. Reduce the data to 12-month rolling averages; and

	c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 13 to this subpart.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to § 63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a)(2).
	b. Reducing the data to 30-day rolling averages; and
	c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the most recent CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes.
	b. Maintaining the operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test according to § 63.7520(c).
11. SO_2emissions using SO_2CEMS	a. Collecting the SO_2CEMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average SO_2CEMS emission rate to a level at or below the minimum hourly SO_2rate measured during the most recent HCl performance test according to § 63.7530.

[78 FR 7204, Jan. 31, 2013]

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements in § 63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and	
	d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), or otherwise not operating, the report must contain the information in § 63.7550(e)	

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart DDDDD
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.7575
§ 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)	Compliance with Standards and Maintenance Requirements	Yes.

§ 63.6(e)(1)(i)	General duty to minimize emissions.	No. See § 63.7500(a)(3) for the general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.
§ 63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§ 63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§ 63.6(g)	Use of alternative standards	Yes.
§ 63.6(h)(1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No. See § 63.7500(a).
§ 63.6(h)(2) to (h)(9)	Determining compliance with opacity emission standards	Yes.
§ 63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.
§ 63.6(j)	Presidential exemption.	Yes.
§ 63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at § 63.7520(a) to (c).
§ 63.7(e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.
§ 63.8(c)(1)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See § 63.7500(a)(3).
§ 63.8(c)(1)(ii)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(iii)	Startup, shutdown, and malfunction plans for CMS	No.
§ 63.8(c)(2) to (c)(9)	Operation and maintenance of CMS	Yes.

§ 63.8(d)(1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required.
§ 63.8(e)	Performance evaluation of a CMS	Yes.
§ 63.8(f)	Use of an alternative monitoring method.	Yes.
§ 63.8(g)	Reduction of monitoring data	Yes.
§ 63.9	Notification Requirements	Yes.
§ 63.10(a), (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Use of startup, shutdown, and malfunction plan	No.
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.

§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No. See § 63.7550(c)(11) for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9).	Reserved	No.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 11 to Subpart DDDDD of Part 63—Toxic Equivalency Factors for Dioxins/Furans

TABLE 11 TO SUBPART DDDDD OF PART 63—TOXIC EQUIVALENCY FACTORS FOR DIOXINS/FURANS

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0003

TABLE 12 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER JUNE 4, 2010, AND BEFORE MAY 20, 2011

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
1. Units in all subcategories designed to burn solid fuel	a. Mercury	3.5E-06 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis	a. Particulate Matter	0.008 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.004 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis	a. Particulate Matter	0.0011 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 3 dscm per run.
	b. Hydrogen Chloride	0.0022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
4. Units designed to burn pulverized coal/solid fossil fuel	a. CO	90 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
5. Stokers designed to burn coal/solid fossil fuel	a. CO	7 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
6. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO	30 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

7. Stokers designed to burn biomass/bio-based solids	a. CO	560 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.005 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO	260 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.02 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
9. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids	a. CO	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
10. Fuel cells designed to burn biomass/bio-based solids	a. CO	470 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
11. Hybrid suspension/grate units designed to burn biomass/bio-based solids	a. CO	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
12. Units designed to burn liquid fuel	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	3.0E-07 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent	Collect a minimum of 4 dscm per run.

		oxygen	
13. Units designed to burn liquid fuel located in non-continental States and territories	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.8E-07 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	51 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
14. Units designed to burn gas 2 (other) gases	a. Particulate Matter	0.0067 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.0017 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.08 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

[a] Incorporated by reference, see § 63.14.

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7206, Jan. 31, 2013, Table 11 was added, effective Apr. 1, 2013. However Table 11 could not be added as a Table 11 was already in existence.

Table 12 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After June 4, 2010, and Before May 20, 2011

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
1. Units in all subcategories designed to burn solid fuel	a. Mercury	3.5E-06 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis	a. Particulate Matter	0.008 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.004 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis	a. Particulate Matter	0.0011 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 3 dscm per run.
	b. Hydrogen Chloride	0.0022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
4. Units designed to burn pulverized coal/solid fossil fuel	a. CO	90 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
5. Stokers designed to burn coal/solid fossil fuel	a. CO	7 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
6. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO	30 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
7. Stokers designed to burn	a. CO	560 ppm by volume on a	1 hr minimum sampling time.

biomass/bio-based solids		dry basis corrected to 3 percent oxygen	
	b. Dioxins/Furans	0.005 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO	260 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.02 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
9. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids	a. CO	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
10. Fuel cells designed to burn biomass/bio-based solids	a. CO	470 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
11. Hybrid suspension/grate units designed to burn biomass/bio-based solids	a. CO	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
12. Units designed to burn liquid fuel	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	3.0E-07 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

13. Units designed to burn liquid fuel located in non-continental States and territories	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.8E-07 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	51 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
14. Units designed to burn gas 2 (other) gases	a. Particulate Matter	0.0067 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.0017 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.08 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

[a] Incorporated by reference, see § 63.14.

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7208, Jan. 31, 2013, Table 12 was added, effective Apr. 1, 2013. However, Table 12 could not be added as a Table 12 was already in existence.

Table 13 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After December 23, 2011, and Before January 31, 2013

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.6E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.8E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
3. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-02 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
4. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
6. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.

	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
7. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
9. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
10. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	810 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.6E-02 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
11. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
12. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
13. Units designed to burn liquid fuel	a. HCl	1.2E-03 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.

	b. Mercury	4.9E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
14. Units designed to burn heavy liquid fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-03 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
15. Units designed to burn light liquid fuel	a. CO (or CEMS)	130 [a]ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, 1-day block average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test; or (91 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-hour rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
17. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit and you are not required to conduct testing for CEMS or CPMS monitor certification, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7210, Jan. 31, 2013]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) Part 70 Significant Source Modification and Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	**BF Goodrich Tire Manufacturing**
Source Location:	**18906 Highway 24 East, Woodburn, IN 46797**
County:	**Allen**
SIC Code:	**3011 (Tires and Inner Tubes)**
Significant Source Modification No.:	**003-33726-00008**
Permit Renewal No.:	**T003-32577-00008**
Permit Reviewer:	**Ryan Graunke**

On November 16, 2013, the Office of Air Quality (OAQ) had a notice published in Fort Wayne Journal Gazette, Fort Wayne, Indiana, stating that BF Goodrich Tire Manufacturing had applied for a Part 70 Significant Source Modification and Part 70 Operating Permit Renewal to make modifications to its existing Banbury mixing area, apply for a VOC BACT (326 IAC 8-1-6), and renew its operating permit. The notice also stated that the OAQ proposed to issue a Part 70 Significant Source Modification and 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 and Responses

On December 12, 2013, BF Goodrich Tire Manufacturing submitted comments to IDEM, OAQ on the draft Part 70 Significant Source Modification and 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:

The stack testing required be Condition D.1.6(a)(1) cannot be accomplished because this dust collector only receives air and dust for very short periods of time throughout the day approximately 2 minutes at a time. This can occur up to 30 times per day. The dust collector is installed to vent the motive air from the pneumatic conveyor piping when the system is shutting down or a different type of carbon black is to be transported and the conveyor piping must be purged. The dust collector's inlet valve is closed unless this depressurizing operation is occurring. No dust or air is entering the control device when this valve is closed.

Response to Comment 1:

IDEM agrees with the recommended changes. Because of the intermittent nature of the stack exhaust, no testing of this baghouse will be required at this time. The permit has been revised as follows:

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

~~(a) In order to demonstrate compliance with Conditions D.1.1(a) through (c) and D.1.2(a):~~

~~(1) The Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on the one (1) carbon black/silica filler transfer area (EU-01) - unloading baghouse stack exhaust (Stack #197) utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~

Comment 2:

The stack testing required by Condition D.1.6 (a)(2) cannot be successfully accomplished because these dust collectors are installed to separate the motive air from the carbon black product. The motive air/product is delivered to the dust collector in short pulses of approximately 2 minutes duration. Numerous "slugs" of the air/product mixture are consecutively transported over a 1-4 hour period. This results in a non-consistent delivery to the dust collector from a pressure and filter loading perspective. Efforts to conduct a PM stack test on this type of equipment at a sister plant in South Carolina could not produce a valid result. Since the processes are nearly identical, the chances of a successful test of these units are unlikely.

Response to Comment 2:

IDEM agrees with the recommended changes. Because of the intermittent nature of the stack exhaust, no testing of this baghouse will be required at this time. The permit has been revised as follows:

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

. . .

~~(2) The Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on one (1) of the four (4) carbon black/silica filler transfer area (EU-01) - transfer baghouse stack exhausts (Stacks #356A, 356B, 356C, and 356D) utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated on a different baghouse at least once every five (5) years from the date of this valid compliance demonstration.~~

(**a**~~b~~) In order to demonstrate compliance with Conditions D.1.1(d) and (e) and D.1.2(a), the Permittee shall perform PM and PM_{10} testing on one (1) of the three (3) the Banbury mixing area (EU-02) baghouse stack exhausts (Stacks #200, 208, and 210), utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated on a different baghouse at least once every five (5) years from the date of this valid compliance demonstration.

(**b**~~c~~) In order to demonstrate compliance with Conditions D.1.1(g) and D.1.2(a), the Permittee shall perform PM testing on one (1) of the four (4) TUO module area (EU-06) - WSW grinding centrifugal separator stack exhausts (Stacks #278, 279, 280, and 281), utilizing methods as approved by the Commissioner not later than one hundred and eighty (180) days after the issuance of this permit, T003-32577-00008. These tests shall be repeated on a different centrifugal separator at least once every five (5) years from the date of this valid compliance demonstration.

(**c**~~d~~) In order to demonstrate compliance with Conditions D.1.1(s)(3) and D.1.3, the Permittee shall perform testing on one (1) of the four (4) boilers (Stacks #109, 114, and 257) controlling VOC emissions from the three (3) tread end cementers (EU-04) utilizing methods as approved by the Commissioner not later than one hundred and eighty (180)

days after the issuance of this permit, T003-32577-00008. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Comment 3:

The requirement in Condition D.1.6(b) to repeat stack test every 5 years will place an unreasonable financial burden on the company and may be in excess of the efforts needed to show compliance. The initial test will validate that the equipment design, maintenance, and operation fall within the specified requirements of the permit. Any modification to the units would require review and possibly a modification to the permit. Also, maintenance of the units is required under the permit. Thus, the equipment should continue to operate as shown in the initial stack test and additional testing should not be necessary to demonstrate continuing compliance.

Response to Comment 3:

Repeat testing is necessary to demonstrate continual compliance and proper operation of the control device. Once compliance with the emission limits has been satisfactorily demonstrated for the WSW grinding centrifugal separators the source can petition IDEM OAQ to re-evaluate if testing is required for these emission units or to reduce the testing frequency. No changes were made as a result of this comment.

Comment 4:

The requirement in Condition D.1.6(c) to repeat stack test every 5 years will place an unreasonable financial burden on the company and may be in excess of the efforts needed to show compliance. The initial test will validate that the equipment design, maintenance, and operation fall within the specified requirements of the permit. Any modification to the units would require review and possibly a modification to the permit. Also, maintenance of the units is required under the permit. Thus, the equipment should continue to operate as shown in the initial stack test and additional testing should not be necessary to demonstrate continuing compliance.

Response to Comment 4:

Repeat testing is necessary to demonstrate continual compliance and proper operation of the control device. Once compliance with the emission limits has been satisfactorily demonstrated for the WSW grinding centrifugal separators the source can petition IDEM OAQ to re-evaluate if testing is required for these emission units or to reduce the testing frequency. No changes were made as a result of this comment.

IDEM Contact

(a) Questions regarding this proposed Part 70 Significant Source Modification and Part 70 Operating Permit Renewal can be directed to Ryan Graunke at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317)234-5374 or toll free at 1-800-451-6027 extension 4-5374.

(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's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	**BF Goodrich Tire Manufacturing**
Source Location:	**18906 Highway 24 East, Woodburn, IN 46797**
County:	**Allen**
SIC Code:	**3011 (Tires and Inner Tubes)**
Significant Source Modification No.:	**003-33726-00008**
Permit Renewal No.:	**T003-32577-00008**
Permit Reviewer:	**Ryan Graunke**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from BF Goodrich Tire Manufacturing relating to the operation of a stationary rubber tire manufacturing plant. On November 30, 2012, BF Goodrich Tire Manufacturing submitted an application to the OAQ requesting to renew its operating permit. BF Goodrich Tire Manufacturing was issued its first Part 70 Operating Permit Renewal (T003-20341-00008) on September 3rd, 2008 and its first Part 70 Operating Permit (T003-5941-00008) on October 16, 2000. This source is an ESP source.

In addition, on October 1, 2013, BF Goodrich Tire Manufacturing submitted an application to the OAQ requesting to modify the use of silica and silane binder in its Banbury mixing area (EU-02) and to apply for a VOC BACT (326 IAC 8-1-6) determination for the three (3) existing tread end cementers (EU-04). Based on additional information submitted by the source, the PTE of each tread cementers is now greater than 25 tons per year. This is different determination when each tread cementer was initially permitted (see State Ruel Applicability – Individual Facilities for details).

This TSD covers the review documentation for both the construction approval of the modified Banbury mixing area and VOC BACT (under the Significant Source Modification: 003-33726-00008) and its operation approval (under the Part 70 Operating Renewal T003-32577-00008). This TSD also covers the renewal of existing units at the source.

Permitted Emission Units and Pollution Control Equipment

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

(a) One (1) carbon black unloading and transfer area, identified as EU-01, installed in 1961 and modified in 1996, with a maximum capacity of 18,916 pounds of filler per hour, using five (5) baghouses for particulate matter control, consisting of the following:

(1) One (1) baghouse for carbon black unloading, which is considered integral to the process, exhausting to stack 197; and

(2) Four (4) baghouses for carbon black transfer, which are considered integral to the process, exhausting to four (4) stacks: 356A, 356B, 356C, 356D, respectively.

(b) One (1) Banbury mixing area, identified as EU-02, constructed in 1961, modified in 1968, modified in 2007 to include the use of silica and silane binder, and approved for modification in 2013 to increase the use of silica and silane binder, with a total maximum capacity of 46,651 pounds of rubber, carbon black, silica, silane binder, and other chemicals per hour, and consisting of the following:

(1) One (1) mixing line, identified as #1 Banbury Mixing Line, consisting of the following:

(A) #1 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 210;

(B) #1 Banbury batchout, using no control, and exhausting to stack 216;

(C) #1 soap tank, using no control, and exhausting to stack 216;

(2) One (1) mixing line, identified as #2 Banbury Mixing Line, consisting of the following:

(A) #2 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 208;

(B) #2 milling line, using three (3) mills (#1, #4, and #5), using no control, and exhausting to stack 202;

(C) #2 Banbury batchout, using no control, and exhausting to stack 201;

(D) #2 soap tank, using no control, and exhausting to stack 201;

(3) One (1) mixing line, identified as #3 Banbury Mixing Line, consisting of the following:

(A) #3 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 200;

(B) #3 milling line, using three (3) mills (#1, #2, and #3), one (1) of which was constructed in 2007, using no control, and exhausting to stacks 286 and 414;

(C) #3 Banbury batchout, using no control, and exhausting to stack 203;

(D) #3 soap tank, using no control, and exhausting to stack 200;

Note 1: #1 Banbury Mixing Line and #3 Banbury Mixing Line typically operate in series.

Note 2: Particulate emissions are generated from the three (3) Banbury mixers and are controlled by three (3) baghouses.

(4) Cement room, using no control, and exhausting to stack 197;

(5) Pelletizer-dewater/incline conveyor, using no control, and exhausting to stack 211.

These units in the Banbury mixing area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

Note: When silane binder is added in the Banbury mixers, it results in VOC emissions both from the Banbury mixing area (EU-02) and the tire curing process (EU-05).

(c) Component preparation area, identified as EU-03, constructed prior to 1974, and consisting of the following processes:

(1) Milling operation, including one (1) stand-alone/recoupe mill installed in 2007, with a total maximum capacity of 49,080 pounds of rubber per hour, and using no control;

(2) Calendering operation, with a maximum capacity of 14,629 pounds of rubber per hour, using no control;

(3) Extruding operation, with a total maximum capacity of 36,762 pounds of rubber per hour, using no control, including the the following:
(A) Apex bead complexers (2), installed in 2008,
(B) One (1) Guilin tread end/sidewall extruder, constructed in 2010,
(C) Four (4) Apex bead extruders, constructed in 2010, and
(D) One (1) bead former, constructed in 2011

(4) Ink marking operation, with a maximum capacity of 46,964 pounds of rubber per hour, using no control.

The component preparation area consists of the following units:

Line/Machine	Emission unit	Stack ID #
#1 Tread Line	Cap extruder	324
#1 Tread Line	Cap extruder conveyor	325
#1 Tread Line	Mill #5-2	326
#2 Tread Line	Mill #8-3	327
#2 Tread Line	Tread line extruders	328
#2 Tread Line	Ink code marker	329
#3 Calender	Mill #11-4	330
#4 Roll Calender	Thread bar	173
#4 Roll Calender	Relax drums	174
#4 Roll Calender	Roof ventilator	186
#4 Roll Calender	Mill #10-4	254
#4 Roll Calender	Plastifier	255
Guilin tread line	Extruders	416
Guilin tread line	Mill	417
Guilin tread line	Cooling bath	418
WSW line	Four (4) mills/extruders/calenders	318
Recoupe line	Two (2) stand-alone mills	415

These units in the Component preparation area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(d) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and in 1997, with a maximum capacity of 604 treads per hour, exhausting to the one (1) of four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to one (1) of the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to one (1) the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control; and

(4) Mud area, constructed in 1961, with a maximum capacity of 8,881,694 tires per year and 0.0027 pounds of solvent per tire, and exhausting to two (2) stacks: 9 and 11.

Note: This process is part of the extruding operation in the component preparation area.

These units in the Tread end cementing process are affected facilities under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(e) Tire curing process, identified as EU-05, constructed in 1961 and modified in 2004 and 2011, approved for modification in 2013 for increased throughput of silica and silane, consisting of two hundred ninety-four (204) curing presses, with a maximum individual capacity of 143.07 pounds of rubber per hour, using no control, and exhausting to thirty (30) stacks: 51 through 58, 60 through 66, 68, 69, 71, 73, 75, 77, 79, 80, and 82 through 88.

One hundred fifty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses to be constructed in 2014 through 2016, which were approved for construction in 2011.

These tire curing presses are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(f) Tire uniformity optimizer (TUO) module area, identified as EU-06, constructed in 1961 and modified in 2003, consisting of the following:

(1) White sidewall (WSW) grinding area, relocated in 2011, consisting of twelve (12) grinding units with a total maximum capacity of 35,223 pounds of rubber tires per hour and 6,661,270 tires per year, using four (4) centrifugal separators as control, exhausting to (4) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
Three (3) WSW Grinders #1, #2, & #3	Centrifugal separator	278
Three (3) WSW Grinders #4, #5, & #6	Centrifugal separator	279
Three (3) WSW Grinders #7, #8, & #9	Centrifugal separator	280
Three (3) WSW Grinders #10, #11, & #12	Centrifugal separator	281

(2) RIS grinding area, consisting of seventeen (17) grinding units, of which ten (10) units were constructed in 1961 and modified in 2003, seven (7) units were constructed in 2007, and one (1) unit was constructed in 2011, with a total maximum capacity of 7,045 pounds of rubber tires per hour and 1,332,254 tires per year, using seventeen (17) centrifugal separators as control, and exhausting to seventeen (17) stacks, consisting of the following:

Emission unit	Control Device	Stack ID #
One (1) RIS Grinder #1	Centrifugal separator	258
One (1) RIS Grinder #2	Centrifugal separator	277
One (1) RIS Grinder #3	Centrifugal separator	282
One (1) RIS Grinder #4	Centrifugal separator	275
One (1) RIS Grinder #5	Centrifugal separator	259
One (1) RIS Grinder #6	Centrifugal separator	265
One (1) RIS Grinder #7	Centrifugal separator	266
One (1) RIS Grinder #8	Centrifugal separator	267
One (1) RIS Grinder #9	Centrifugal separator	268
One (1) RIS Grinder #10	Centrifugal separator	269
One (1) RIS Grinder #11	Centrifugal separator	270
One (1) RIS Grinder #12	Centrifugal separator	271
One (1) RIS Grinder #13	Centrifugal separator	272
One (1) RIS Grinder #14	Centrifugal separator	260
One (1) RIS Grinder #15	Centrifugal separator	261
One (1) RIS Grinder #16	Centrifugal separator	276
One (1) RIS Grinder #24	Centrifugal separator	274

Emission unit	Control Device	Stack ID #
One (1) RIS Grinder #25	Centrifugal separator	273

The units in the TUO module are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

(g) One (1) green tire spray operation, installed in 1961, consisting of four (4) spray machines equipped with air atomizing spray heads, identified as GTS #1, #2, #3, and #5, with a maximum capacity of 8,881,694 tires per year and 0.088 gallon per tire, using baffle filters for particulate matter control, and exhausting to four (4) stacks 262, 263, 264, and 280;

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(h) One (1) white sidewall (WSW) protectant spray operation, installed in 1961, using three (3) spray heads each with two (2) nozzles, one (1) of which is high pressure, with a maximum capacity of 6,661,270 tires per year and 0.001 gallon per tire, using four (4) centrifugal separators as control, and exhausting to four (4) stacks 278, 279, 280, and 281;

Note: This operation exhausts to the same centrifugal separators and stacks as the WSW grinding operation (EU-06).

This operation is an affected facility under 40 CFR Part 60, Subpart BBB (3B) and 40 CFR Part 63, Subpart XXXX (4X).

(i) Four (4) boilers consisting of the following, identified as EU-07:

(1) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #1, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(2) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #2, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(3) One (1) natural gas fired boiler, identified as Boiler #3, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 114;

(4) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #5, constructed in 1974, with a maximum heat input capacity of 130 million Btu per thermal, using no control, and exhausting to stack 257.

These units are affected facilities under 40 CFR Part 63, Subpart DDDDD (5D).

Note: The three (3) tread end cementers (EU-04) vents to these boilers for VOC control.

(j) One (1) tire building area, constructed in 1961, with a maximum capacity of 47,290 pounds of tires per hour, using no control, exhausting at stack 279.

This area is an affected facility under 40 CFR Part 63, Subpart XXXX (4X).

Note: Emissions from the tire building area are negligible.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no new unpermitted units included in this permit renewal

Emission Units and Pollution Control Equipment Removed From the Source

There are no existing units that have been removed from this source.

Insignificant Activities

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

(a) The following combustion related activities:

(1) One (1) natural gas-fired hot water heating system, installed in 2004, with a maximum input capacity of 0.18 million Btu per hour;

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(2) One (1) fire system water tank heating boiler, installed in 2003, using No. 2 fuel oil, with a maximum throughput of 1.54 MMBtu/hr; and

This unit is an affected facility under 40 CFR Part 63, Subpart DDDDD (5D).

(3) Two (2) diesel fire pumps, identified as #1 and #2, installed in 1973, using No. 2 fuel oil, each with a maximum capacity of 275 hp;

These units are affected facilities under 40 CFR Part 63, Subpart ZZZZ (4Z).

(4) Combustion source flame safety purging on startup;

(b) The following fuel dispensing activities:

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

(2) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing 35,000 gallons per day or less;

(c) The following VOC and HAP storage containers:

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

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

(d) The following production related activities:

(1) Equipment used exclusively for filling drums, pails, or other packaging containers with lubricating oils, waxes, and greases.

(2) Application of oils, greases, lubricants, or other nonvolatile materials as temporary protective coatings;

(3) Machining where an aqueous cutting coolant continuously floods the machining interface;

(4) Degreasing operations using 145 gallons of solvent per month; [326 IAC 8-3-2]

(5) Cleaners and solvents characterized as follows:

(A) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF); or

(B) Having a vapor pressure equal to or less than 0.7 kPA; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(6) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(7) Closed loop heating and cooling systems;

(8) Infrared cure equipment; and

(9) The following structural steel and bridge fabrication activities:

(A) Cutting 20000 linear feet or less of one inch (1") plate or equivalent; and

(B) Using 80 tons or less of welding consumables.

(e) Solvent recycling systems with batch capacity less than or equal to 100 gallons;

(f) The following water based activities:

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

(2) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, and on-site sewage treatment facility;

(3) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;

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

(5) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

(g) The following repair activities:

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

(2) Heat exchanger cleaning and repair; and

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

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

(i) Asbestos abatement projects regulated by 326 IAC 14-10;

(j) 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;

(k) 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;

(l) Blowdown for sight glass; boiler; compressors; pumps; and cooling tower;

(m) The following activities associated with emergencies:

(1) On-site fire and emergency response training approved by the department;

(2) One (1) wastewater treatment plant emergency generator, installed in 2003, using No. 2 fuel oil, with a maximum capacity of 147 hp; and

This unit is an affected facility under 40 CFR Part 63, Subpart ZZZZ (4Z).

(3) Stationary fire pumps;

(n) The following abrasive blasting operations controlled with fabric filters with a design grain loading of less than or equal to three one-hundredths grains per actual cubic foot (0.03 gr/acf) and a gas flow rate less than or equal to four thousand actual cubic feet per minute (4,000 acf/min):

(1) One (1) steel shot blaster, identified as Guyson blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 1.0 pound of steel shot per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(2) One (1) grit blaster, identified as Econoline blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pounds of abrasive per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(3) One (1) grit blaster, identified as Pangborn blaster, equipped with one (1) nozzle with a maximum throughput of 500 pounds of tire molds per hour and 100.364 pound of grit per hour, equipped with a fabric filter for particulate control, and exhausting indoors.

(o) A laboratory as defined in 326 IAC 2-7(21)(D);

(p) Farm operations;

(q) The following VOC liquid storage tanks:

(1) One (1) heptane storage tank, identified as 403-1, with a maximum capacity of 250 gallons;

(2) One (1) heptane storage tank, identified as 403-2, with a maximum capacity of 250 gallons;

(3) One (1) heptane storage tank, identified as 403-3, with a maximum capacity of 250 gallons;

(4) One (1) heptane storage tank, identified as 403-4, with a maximum capacity of 250 gallons;

(5) One (1) No. 2 fuel oil storage tank, identified as 405, with a maximum capacity of 120 gallons;

(6) One (1) heptane storage tank, identified as 413-T1, with a maximum capacity of 15,500 gallons;

(7) One (1) No. 6 fuel oil storage tank, identified as 413-T9, with a capacity of 2,000,000 gallons;

(8) One (1) No. 2 fuel oil storage tank, identified as 413-T10, with a maximum capacity of 560 gallons;

(9) One (1) gasoline storage tank, identified as 413-T11, with a maximum capacity of 300 gallons;

(10) One (1) gasoline storage tank, identified as 413-T12, with a maximum capacity of 560 gallons;

(11) One (1) No. 2 fuel oil storage tank, identified as 413-T13, with a maximum capacity of 288 gallons;

(12) One (1) No. 2 fuel oil storage tank, identified as 413-T14, with a maximum capacity of 288 gallons;

(13) One (1) No. 2 fuel oil storage tank, identified as 413-T15, with a maximum capacity of 1000 gallons;

Construction and Operation Review of the Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by BF Goodrich Tire Manufacturing on March 11, 2013, relating to modification to increase the use of silica and silane binder in the Banbury Mixing Unit (EU-02). This modification will also result in increased VOC emissions from the tire curing process (EU-05). The following is the modified emission unit:

(b) One (1) Banbury mixing area, identified as EU-02, constructed in 1961, modified in 1968, modified in 2007 to include the use of silica and silane binder, and approved for modification in 2013 to increase the use of silica and silane binder, with a total maximum capacity of 46,651 pounds of rubber, carbon black, silica, silane binder, and other chemicals per hour, and consisting of the following:

(1) One (1) mixing line, identified as #1 Banbury Mixing Line, consisting of the following:

(A) #1 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 210;

(B) #1 Banbury batchout, using no control, and exhausting to stack 216;

(C) #1 soap tank, using no control, and exhausting to stack 216;

(2) One (1) mixing line, identified as #2 Banbury Mixing Line, consisting of the following:

(A) #2 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 208;

(B) #2 milling line, using three (3) mills (#1, #4, and #5), using no control, and exhausting to stack 202;

(C) #2 Banbury batchout, using no control, and exhausting to stack 201;

(D) #2 soap tank, using no control, and exhausting to stack 201;

(3) One (1) mixing line, identified as #3 Banbury Mixing Line, consisting of the following:

(A) #3 Banbury mixer, using one (1) baghouse for particulate control, and exhausting to stack 200;

(B) #3 milling line, using three (3) mills (#1, #2, and #3), one (1) of which was constructed in 2007, using no control, and exhausting to stacks 286 and 414;

(C) #3 Banbury batchout, using no control, and exhausting to stack 203;

(D) #3 soap tank, using no control, and exhausting to stack 200;

Note 1: #1 Banbury Mixing Line and #3 Banbury Mixing Line typically operate in series.

Note 2: Particulate emissions are generated from the three (3) Banbury mixers and are controlled by three (3) baghouses.

(4) Cement room, using no control, and exhausting to stack 197;

(5) Pelletizer-dewater/incline conveyor, using no control, and exhausting to stack 211.

These units in the Banbury mixing area are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

Note: When silane binder is added in the Banbury mixers, it results in VOC emissions both from the Banbury mixing area (EU-02) and the tire curing process (EU-05).

(e) Tire curing process, identified as EU-05, constructed in 1961 and modified in 2004 and 2011, approved for modification in 2013 for increased throughput of silica and silane, consisting of two hundred ninety-four (204) curing presses, with a maximum individual capacity of 143.07 pounds of rubber per hour, using no control, and exhausting to thirty (30) stacks: 51 through 58, 60 through 66, 68, 69, 71, 73, 75, 77, 79, 80, and 82 through 88.

One hundred fifty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses to be constructed in 2014 through 2016, which were approved for construction in 2011.

These tire curing presses are affected facilities under 40 CFR Part 63, Subpart XXXX (4X).

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

PTE Change of the Modified Process			
Pollutant	**PTE Before Modification** (ton/yr)	**PTE After Modification** (ton/yr)	**Increase from Modification** (ton/yr)
PM	341	341	0
PM_{10}	182	182	0
$PM_{2.5}$	33.7	33.7	0
SO_2	-	-	-
VOC	129.6	153.3	29.74
CO	-	-	-
NO_X	-	-	-
HAPs	-	-	-

Note: These emissions are the sum emissions for the Banbury mixing process (EU-02) and the tire curing process (EU-05) and VOC emissions associated with the use of silane. VOC PTE before modification is based on the PTE of EU-02 and EU-05 without the use of silane plus the previously limited VOC emissions of 40 tons per year due to silane usage (SSM No. 003-26320-00008 and SPM No. 003-26647-00008).

See Appendix A for the calculations.

(a) Approval to construct - Significant Source Modification

This source modification is subject to 326 IAC 2-7-10.5(g)(4) because the modification has a PTE of VOC greater than 25 tons per year and is subject to 326 IAC 8-1-6.

(b) Approval to operate - Part 70 Permit Renewal

This modification requires a significant permit modification pursuant to 326 IAC 2-7-12(d)(1) because the increase of the use of silane will incorporate limits and monitoring in the permit and a case by case limit under 326 IAC 8-1-6 will also be incorporated. However, instead of issuing a separate significant permit modification, this significant permit revision will be incorporated into this renewal.

Existing Approvals

Since the issuance of the Part 70 Operating Permit (003-20341-00008) on September 3, 2008, the source has constructed or has been operating under the following additional approvals:

(a) Significant Source Modification (003-26320-00008) issued on September 4, 2008;

(b) Significant Permit Modification (003-26647-00008) issued on September 23, 2008;

(c) Significant Permit Modification (003-29089-00008) issued on November 23, 2010;

(d) Minor Source Modification (003-29925-00008) issued on December 22, 2010;

(e) Significant Permit Modification (003-29948-00008) issued on February 17, 2011; and

(f) Significant Permit Modification (003-31089-00008) issued on January 1, 2012.

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.

Air Pollution Control Justification as an Integral Part of the Process

The following justification was incorporated into this permit from the previous Part 70 Operating Permit T003-20341-00008, issued in 2008, for the integral determination of the baghouses controlling the carbon black/silica filler unloading and transfer area (EU-01):

(a) According to Nol-Tec Systems Inc., manufacturer of this system, the pneumatic conveyor systems since the initial conception have always had some type of air separation unit. If there was no separation, then the product would escape with the transporting air. Original separation consisted of using cyclonic separator or the storage tank itself as a settling chamber. Now standard industry separators include high efficiency baghouses.

(b) Because BF Goodrich is transporting a lighter product at much lower velocities, high efficiency baghouses is used to bleed off the transport air. The carbon black pellets are very fragile and prone to break-up during transport. This is the reason the velocity, which is proportional to the volume of transport air, is kept at the absolute minimum to accomplish the transfer of material. Increasing the air pressure to maintain a minimum differential pressure across the baghouse would result in the destruction of up to 25% of the carbon black pellets being conveyed.

(c) According to discussions with Nol-Tec Systems Inc., the manufacturer, if the baghouses were not in place an estimated product loss of 10-20% would result. This is an estimated loss of between $4,000,000 and $8,000,000 annually. The estimated cost of the four baghouses is $60,000, which includes direct capital costs, indirect installation costs, direct annual costs in operating the baghouses, and indirect annual costs. Based on the analysis, the savings in installing the baghouses to collect the product is substantial.

IDEM, OAQ has evaluated the justifications and agreed that the five (5) baghouses will be considered as an integral part of the carbon black/silica filler unloading and transfer area (EU-01). Therefore, the permitting level will be determined using the potential to emit after the baghouses. Operating conditions in the proposed permit will specify that these baghouses shall operate at all times when the carbon black/silica filler unloading and transfer area is in operation.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Allen County.

SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective February 12, 2007, for the Fort Wayne area, including Allen County, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1] Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards
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. Allen 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) $PM_{2.5}$
Allen County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5,}$ $SO_{2,}$ and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Allen 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 type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not 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	1,075
PM_{10}	441
$PM_{2.5}$	190
SO_2	1,613
NO_x	374.2
VOC	481.0
CO	104.6
GHGs as CO_2e	230,882
Single HAP	10.9 (Methyl-Isobutyl-Ketone)
Total HAP	41.1

HAPs	Tons/year
Aniline	2.11
Carbon disulfide	2.76
Chromium	0.0007
Diethylene Glycol Mono Butyl Ether	1.57
Ethyl benzene	2.73
Formaldehyde	0.24
Hexane	5.74
Hydroquinone	5.37
Isophorone	2.57
Lead	0.01
Methylene chloride	10.90
Methyl-Isobutyl-Ketone	10.84
Manganese	0.01
Nickel	0.58
Selenium	7.23×10^{-7}
Toluene	4.58
m-Xylene & p-Xylene	7.42
Total	**41.09**

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM_{10}, $PM_{2.5}$, SO_2, NO_x, and VOC 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.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

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 as CO_2e	Total HAPs	Worst Single HAP
Filler Transfer/Unloading (EU-01)	11.19	8.81	2.99	-	-	-	-	-	-	-
Banbury Mixing Area (EU-02)	13.1	13.1	13.1	-	-	241.7	-	-	12.1	7.89 - Methylene Chloride
Silane binder usage	-	-	-	-	-		-	-	-	-
Component Prep (EU-03) - Milling	-	-	-	-	-		-	-	4.43	2.41 - Isophorone
Component Prep (EU-03) - Calendering	-	-	-	-	-		-	-	0.82	0.25 - Toluene
Component Prep (EU-03) - Extruding	-	-	-	-	-		-	-	5.67	2.12 - Methylene Chloride
Component Prep (EU-03) - Marking Ink	-	-	-	-	-		-	-	1.57	1.57 - Diethylene Glycol mono Butyl Ether
Tread End Cementing (EU-04)	-	-	-	-	-		-	-	-	-
Tread End Cementing (EU-04) - Mud Room	-	-	-	-	-		-	-	-	-
Tire Curing (EU-05)	-	-	-	-	-		-	-	21.8	6.91 - m-Xylene + p-Xylene

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 as CO_2e	Total HAPs	Worst Single HAP
TUO area (EU-06) - WSW Grinding	82.3	43.8	43.8	-	-		-	-	0.6	0.21 - Aniline
TUO area (EU-06) - RIS Grinding	13.4	7.33	3.66	-	-		-	-	0.04	0.01 - Aniline
Green Tire Spray	3.43	3.43	3.43	-	-		-	-	-	-
WSW Protectant Spray	***	***	***	-	-		-	-	-	-
Boilers #1, #2, #3, #5 (EU-07)	116.6	99.9	60.2	249.9	249.9	6.75	103.2	229,509	2.32	2.21 - Hexane
Hot Water Heating System	0.002	0.006	0.0059			0.004	0.065	93	0.0015	0.0014 - Hexane
Fire System Boiler	0.096	0.115	0.103			0.027	0.014	62	negl.	negl.
Fire Pump & Wastewater Emergency Generator	0.38	0.38	0.38			0.44	1.16	201	0.0047	0.001 - Formaldehyde
Abrasive blasters	8.34	8.34	8.34	-	-	-	-	-	-	-
Tanks	-	-	-	-	-	0.37	-	-	-	-
Other insignificant activities	0.04	0.04	0.04	-	-	0.62	-	-	0.013	0.012 - Manganese
Unpaved Roads - fugitive****	1.57	0.36	0.04	-	-	-	-	-	-	-
Paved Road - fugitive****	4.57	0.91	0.22	-	-	-	-	-	-	-
Total PTE of Entire Source	**249.0**	**185.3**	**168.6**	**249.9**	**249.9**	**249.9**	**104.6**	**230,882**	**49.3**	**11.9 -Methyl-Isobutyl-Ketone**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e	NA	NA

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$
***The WSW protectant spray exhausts to the same centrifugal separators as the WSW grinding operation. Therefore, PM and PM_{10} emissions are included in the limits for the WSW grinding operations.
****Fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

(a) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, and it is not in one of the twenty-eight (28) listed source categories. The modification included in this renewal is not major because the emissions increase added to the source will keep the PSD minor status of the source. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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

Carbon black/silica filler unloading and transfer area (EU-01): PM, PM_{10}, $PM_{2.5}$

(1) PM emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.51 pounds per hour.

(2) PM_{10} emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.40 pounds per hour.

(3) $PM_{2.5}$ emissions from each of the five (5) baghouses associated with the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 0.14 pounds per hour.

Banbury mixing area (EU-02): PM, PM_{10}, $PM_{2.5}$

(4) PM emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

(5) PM_{10} emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

(6) $PM_{2.5}$ emissions from each of the three (3) baghouses associated with the Banbury mixing area (EU-02) shall not exceed 1.00 pounds per hour.

TUO module area (EU-06) - WSW Grinding area and WSW protectant spray: PM, PM_{10}, $PM_{2.5}$

(7) PM emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 4.70 pounds per hour.

(8) PM_{10} emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 2.50 pounds per hour.

(9) $PM_{2.5}$ emissions from each of the four (4) centrifugal separators associated with the TUO module area (EU-06) - WSW Grinding area and WSW protectant spray shall not exceed 2.50 pounds per hour.

TUO module area (EU-06) - RIS grinding area: PM, PM_{10}, $PM_{2.5}$

(10) PM emissions from each of the seventeen (17) centrifugal separators associated with the TUO module area (EU-06) - RIS grinding area shall not exceed 0.18 pounds per hour.

Note: The unlimited potential PM_{10} and $PM_{2.5}$ emissions from the TUO module area - RIS Grinding area keep the source-wide potential PM_{10} and $PM_{2.5}$ emissions each less than 250 tons/year. Therefore, there are no limits on PM_{10} and $PM_{2.5}$ for the TUO module area - RIS Grinding area required to render 326 IAC 2-2 not applicable.

Green tire spray: PM, PM_{10}, $PM_{2.5}$

(11) PM, PM_{10}, and $PM_{2.5}$ emissions from the green tire spray shall be controlled by baffle filters, and the baffle filters shall be operated in accordance with the manufacturer's specifications.

WSW protectant spray: PM, PM_{10}, $PM_{2.5}$

(12) PM, PM_{10}, and $PM_{2.5}$ emissions from the WSW protectant spray shall be controlled by centrifugal separators, and the centrifugal separators shall be operated in accordance with the manufacturer's specifications.

Abrasive blasters: PM, PM_{10}, $PM_{2.5}$

(13) PM emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(14) PM_{10} emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(15) $PM_{2.5}$ emissions after control from the Econoline blaster shall not exceed 0.4 pounds per hour.

(16) PM emissions after control from the Pangborn blaster shall not exceed 1.5 pounds per hour.

(17) PM_{10} emissions after control from the Pangborn blaster shall not exceed 1.5 pounds per hour.

(18) $PM_{2.5}$ emissions after control from the Pangborn blaster shall not exceed 1.5 pounds per hour.

These are new requirements for the source. Previous to this renewal, there were no PSD minor limits for PM, PM_{10}, and $PM_{2.5}$ to avoid 326 IAC 2-2. In order for the source to keep its PSD minor status, these limitations are included in this permit renewal.

(17) The total VOC usage for the following operations shall be limited such that the VOC emissions shall not exceed 241.7 tons per twelve (12) consecutive month period, with compliance determined at the end of each month:

(A) Banbury mixing area (EU-02)
(B) Component preparation area (EU-03) - milling, calendering, extruding, and ink marking operations
(C) Tread end cementing process (EU-04)
(D) Tire curing process (EU-05)
(E) TUO module area (EU-06) - WSW and RIS grinding areas
(F) Green tire spray operation (Insignificant activity)
(G) WSW protectant spray operation (Insignificant activity)

The VOC limit has been revised in this renewal from 243.2 tons/year so that the limited emissions and the unlimited emissions from insignificant activities are less than 250 tons of VOC per year. This is a Title I change.

VOC emissions (in tons per calendar month) shall be calculated using the appropriate equation below for each of the listed processes. For all equations below, unless otherwise specified, the maximum VOC emission factors shall be from the most recent version of the U.S. EPA's AP-42, Chapter 4.12 (Manufacture of Rubber Products).

(A) VOC emissions from the Banbury mixing are (EU-02) shall be calculated using the following equation:

VOC Emissions (tons/month) = $(R_{mix} * MEF_{mix})/2000$

Where: R_{mix} = pounds of rubber mixed per month; and
MEF_{mix} = 4.59×10^{-4} pounds of VOC per pound of rubber, this is the maximum AP-42 emission adjusted to accommodate VOC emissions from mixing rubber compounds with maximum silane usage

Note: this equation was clarified by indicating the numerical value of the $MEF_{mix.}$

(B) VOC emissions from the component preparation area (EU-03) - milling operation shall be calculated using the following equation:

VOC Emissions (tons/month) = (Rmill * MEF_{mill})/2000

Where: R_{mill} = pounds of rubber milled per month; and
MEF_{mill} = 1.13×10^{-4} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds milled that month

Note: this equation was clarified by indicating the numerical value of the MEF_{mill}

(C) VOC emissions from component preparation area (EU-03) - calendering operation shall be calculated using the following equation:

VOC Emissions (tons/month) = ($R_{calender}$ * $MEF_{calender}$)/2000

Where: $R_{calender}$ = pounds of rubber calendered per month and
$MEF_{calender}$ = 5.59×10^{-5} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds calendered that month

Note: this equation was clarified by indicating the numerical value of the $MEF_{calendar.}$

(D) VOC emissions from component preparation area (EU-03) - extruding operation shall be calculated using the following equation:

VOC Emissions (tons/month) = ($R_{extrude}$ * $MEF_{extrude}$)/2000

Where: $R_{extrude}$ = pounds of rubber extruded per month and
$MEF_{extrude}$ = 1.23×10^{-5} pounds of VOC per pound of rubber or the maximum VOC emission factor for the compounds extruded that month

Note: this equation was clarified by indicating the numerical value of the $MEF_{extrude.}$

(E) VOC emissions from the three (3) tread end cementers (#1, #2, and Guilin) shall be calculated using the following equation:

VOC Emissions (tons/month) = (T * C * VOC * O)/2000

Where: T = treads cemented per month in the tread end cementers;
C = pounds of cement used per tread
VOC = VOC content of cement (% by weight)
O = Overall control efficiency of boiler (50%)

Note: This is a new equation added to take into account the emissions from the tread end cementers (EU-04). In addition, the source is

going to take into account the use of the boilers to control VOC emissions.

(F) VOC emissions from the tire curing process (EU-05) shall be calculated using the following equation:

VOC Emissions (tons/month) = (R_{cure} * MEF_{cure})/2000

Where: R_{cure} = pounds of rubber cured per month and
MEF_{cure} = 4.07×10^{-4} pounds of VOC per pound of rubber, this is the maximum AP-42 emission adjusted to accommodate VOC emissions from curing rubber compounds with maximum silane usage

Note: this equation was clarified by indicating the numerical value of the $MEF_{cure.}$

(G) VOC emissions from TUO module area (EU-06) - WSW grinding area shall be calculated using the following equation:

VOC Emissions (tons/month) = (G_{WSW} * MEF_{WSW})/2000

Where: G_{WSW} = pounds of rubber removed in WSW grinding area per month; calculated by multiplying the number of tires ground and the maximum weight of rubber removed per grind
MEF_{WSW} = 1.59×10^{-2} pounds of VOC per pound of rubber removed

Note: this equation was clarified by indicating the numerical value of the $MEF_{WSW.}$

(H) VOC emissions from the TUO module area (EU-06) - RIS grinding area shall be calculated using the following equation:

VOC Emissions (tons/month) = (G_{RIS} * MEF_{RIS})/2000

Where: G_{RIS} = pounds of rubber removed in RIS grinding area per month; calculated by multiplying the number of tires ground and the maximum weight of rubber removed per grind
MEF_{RIS} = 1.59×10^{-2} pounds of VOC per pound of rubber removed

Note: this equation was clarified by indicating the numerical value of the $MEF_{RIS.}$

VOC emissions (in tons per calendar month) for the following processes shall be the VOC input, which shall be calculated by multiplying the VOC content of a coating or solvent by the amount of that coating or solvent used during the calendar month:

(A) Component preparation area (EU-03) - Ink marking operation
(B) Tread end cementing (EU-04) - Mud room
(C) Green tire spray operation
(D) WSW protectant spray operation

(14) The total SO_2 emissions from Boilers #1, #2, #3, and #5 and all insignificant combustion units shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The SO_2 numerical limit has not been revised in this renewal. However, the limit has been revised to include all insignificant combustion units. This is a Title I change.

SO_2 emissions are calculated by using the following equations:

Total SO_2 emissions (tons/month) = SO_2[No. 2 fuel oil] + SO_2[No. 6 fuel oil] + SO_2[natural gas]

(A) For No. 2 fuel oil (Boilers #1, #2, #5, and fire system boiler):

SO_2 emissions (tons/month) = T * EF_{SO2} / 2000

Where: T = Total throughput of No. 2 fuel oil for the boilers in kilogallons per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= (142 * Percent (%) sulfur content, by weight * 100) lb SO_2 per kilogallon

(B) For No. 2 fuel oil (fire pumps and emergency generator):

SO_2 emissions (tons/month) = $\sum$(H * O) * EF_{SO2} / 2000

Where: H = Horsepower of each unit
O = Hours each unit is operated per month
EF_{SO2} = AP-42 Emission Factor (Chapter 3.3, Table 3.3-1)
= 0.00205 lb SO_2 per horsepower-hour

(C) For No. 6 fuel oil:

SO_2 emissions (tons/month) = T * EF_{SO2} / 2000

Where: T = Source-wide throughput of No. 6 fuel oil in kilogallons per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1) in lb SO_2 per kilogallon
= (157 * Percent (%) sulfur content, by weight * 100) lb SO_2 per kilogallon

(D) For natural gas:

SO_2 emissions (tons/month) = T * 0.6 / 2000

Where: T = Source-wide throughput of natural gas in million cubic feet (MMCF) per month
EF_{SO2} = AP-42 Emission Factor (Chapter 1.4, Table 1.4-2)
= 0.6 lb SO_2 / MMCF

(15) The total NO_x emissions from Boilers #1, #2, #3, and #5 and all insignificant combustion units shall not exceed 249.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The NO_x numerical limit has been revised in this renewal. However, the limit has been revised to include all insignificant combustion units. In addition, the NO_x equations have been corrected by indicating the correct emissions factors for the corresponding fuel. This is a Title I change.

NO_x emissions are calculated by using the following equations:

Total NO_x emissions (tons/month) = NO_x[No. 2 fuel oil] + NO_x[No. 6 fuel oil] + NO_x[natural gas]

(A) For No. 2 fuel oil:

NO_x emissions (tons/month) = $\sum$ (T) * EF_{NOx} / 2000

Where: T = Throughput of No. 2 fuel oil in kilogallons per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= 24.0 lb NO_x per kilogallon (Boiler #5)
= 20.0 lb NO_x per kilogallon (Boilers #1, #2, and fire system boiler)

(B) For No. 2 fuel oil (fire pumps and emergency generator):

NO_x emissions (tons/month) = $\sum$ (H * O) * EF_{SO2} / 2000

Where: H = Horsepower of each unit
O = Hours each unit is operated per month
EF_{NOx} = AP-42 Emission Factor (Chapter 3.3, Table 3.3-1)
= 0.031 lb NO_x per horsepower-hour

(C) For No. 6 fuel oil:

NO_x emissions (tons/month) = $\sum$(T) * EF_{NOx} / 2000

Where: T = Throughput of No. 6 fuel oil in kilogallons per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.3, Table 1.3-1)
= 47.0 lb NO_x per kilogallon (Boiler #5)
= 55.0 lb NO_x per kilogallon (Boilers #1 and #2)

(D) For natural gas:

NO_x emissions (tons/month) = $\sum$(T) * EF_{NOx} / 2000

Where: T = Throughput of natural gas in million cubic feet (MMCF) per month for each boiler
EF_{NOx} = AP-42 Emission Factor (Chapter 1.4, Table 1.4-1)
= 280.0 lb NO_x per MMCF
(Boiler #5)
= 100.0 lb NO_x per MMCF (Boilers #1, #2, #3, and hot water heater)

Compliance with these limits, combined with the unlimited potential to emit PM, $PM_{2.5}$, PM_{10}, VOC, SO_2, and NO_x from all other emission units at this source, shall limit the source-wide total potential to emit of each pollutant to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(b) This existing stationary source has emissions of GHGs greater than one hundred thousand (>100,000) tons of CO_2 equivalent emissions (CO_2e) per year and considered as a major source for CO_2e, and the source has not undertaken a physical change or change in the method of operation on or after July 1, 2011, that resulted in an emissions increase of seventy-five thousand (75,000) tons per year of CO_2e or more.

Federal Rule Applicability

Compliance Assurance Monitoring (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:

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)
Filler unloading & transfer area (EU-01) / PM	Five (5) baghouses*	Y	2,237.5	11.19	100	Y	N
Filler unloading & transfer area (EU-01) / PM_{10}	Five (5) baghouses*	Y	1,762.6	8.81	100	Y	N
Filler unloading & transfer area (EU-01) / $PM_{2.5}$	Five (5) baghouses*	Y	597.0	2.99	100	Y	N
Banbury mixing Area (EU-02) / PM	Three (3) baghouses	Y	340.8	2.7	100	Y	N
Banbury mixing Area (EU-02) / PM_{10}	Three (3) baghouses	Y	182.3	1.6	100	Y	N
Banbury mixing Area (EU-02) / $PM_{2.5}$	Three (3) baghouses	Y	87.5	-	100	N	-
Tread end cementer #1 (EU-04) / VOC	One (1) of the four (4) bolers (#1, #2, #3, and #5)	Y	66.3	-	100	N	-
Tread end cementer #2 (EU-04) / VOC	One (1) of the four (4) bolers (#1, #2, #3, and #5)	Y	79.7	-	100	N	-
Guilin tread end cementer (EU-04) / VOC	One (1) of the four (4) bolers (#1, #2, #3, and #5)	Y	53.1	-	100	N	-
TUO module area (EU-06) - WSW grinding / PM	Four (4) centrifugal separators	Y	519.6	77.9	100	Y	N
TUO module area (EU-06) - WSW grinding / PM_{10}	Four (4) centrifugal separators	Y	103.9	15.6	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
TUO module area (EU-06) - WSW grinding / $PM_{2.5}$	Four (4) centrifugal separators	Y	52.0	-	100	N	-
TUO module area (EU-06) - RIS grinding / PM	Seventeen (17) centrifugal separators	Y	36.6	-	100	N	-
TUO module area (EU-06) - RIS grinding / PM_{10}	Seventeen (17) centrifugal separators	Y	7.3	-	100	N	-
TUO module area (EU-06) - RIS grinding / $PM_{2.5}$	Seventeen (17) centrifugal separators	Y	3.7	-	100	N	-
Green tire spray / PM, PM_{10}, $PM_{2.5}$	Baffle filters	Y	13.71	-	100	N	-
WSW protectant spray / PM and PM_{10}	Four (4) centrifugal separators	Y	7.55	-	100	N	-
WSW protectant spray / $PM_{2.5}$	Four (4) centrifugal separators	Y	7.55	-	100	N	-
Guyson blaster / PM	Fabric Filters	N	-	-	-	N	-
Guyson blaster / PM_{10} & $PM_{2.5}$	Fabric Filters	N	-	-	-	N	-
Econoline blaster / PM	Fabric Filters	Y	4.4	-	-	N	-
Econoline blaster / PM_{10} & $PM_{2.5}$	Fabric Filters	Y	3.8	-	-	N	-
Pangborn blaster / PM	Fabric Filters	Y	17.6	-	-	N	-
Pangborn blaster / PM_{10} & $PM_{2.5}$	Fabric Filters	Y	15.1	-	-	N	-

*The five (5) baghouses for the filler unloading and transfer area are considered integral to the process for permitting purpose only. The integral determination is not used for CAM evaluation.

VOC emissions from all units, except for the tread end cementers, are uncontrolled and, therefore, are not subject to CAM. Emissions from boilers #1, #2, #3, and #5 have no control device and, therefore, are not subject to CAM

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the carbon black/silica filler unloading & transfer area (EU-01) for PM, PM_{10}, and $PM_{2.5}$, the Banbury mixing Area (EU-02) for PM and PM_{10}, and the TUO area - WSW grinding area (EU-06) for PM and PM_{10} upon issuance of the Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal.

<u>New Source Performance Standards (NSPS)</u>

(b) The requirements of the NSPS for Fossil-Fuel-Fired Steam Generators (40 CFR Part 60, Subpart D) are still not included in the permit for Boilers #1, #2, #3, and #5 because Boilers #1, #2, and #3 were constructed prior to August 17, 1961 and all four boilers have a heat input capacity less than 250 MMBtu/hr..

(c) The requirements of the NSPS for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Db) are still not included in the permit for Boilers #1, #2, #3, and #5 because Boilers #1, #2, and #3 have a heat input capacity less than 100 MMBtu/hr and all four boilers were constructed prior to June 19, 1984.

(d) The requirements of the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Dc) are still not included in the permit for Boilers #1, #2, #3, and #5 because Boilers #5 has a heat input capacity greater than 100 MMBtu/hr and all four boilers were constructed prior to June 9, 1989.

(e) The requirements of the NSPS for Storage Vessels for Petroleum Liquids (40 CFR Part 60, Subparts K, Ka, and Kb) are still not included in the permit for any of the storage tanks because tank 143-T9, with a capacity of 2,000,000 gallons, was constructed prior to June 11, 1973, and all other tanks have a capacity less than 75 m^3.

(f) This source is still subject to the NSPS for Rubber Tire Manufactuing (40 CFR Part 60, Subpart BBB (3B)), which is incorporated by reference as 326 IAC 12, because the source commenced modification after January 20, 1983.

The following units are subject to this rule:

(1) One (1) tread end cementing process, identified as EU-04.

(2) One (1) green tire spray operation.

(3) One (1) white sidewall (WSW) protectant spray operation.

The source is subject to the following portions of Subpart BBB (3B):

(1) 40 CFR 60.540(a),(c)
(2) 40 CFR 60.541
(3) 40 CFR 60.542(a)(3) and (5)
(4) 40 CFR 60.543(a),(b),(c),(l),(m)
(5) 40 CFR 60.545(d)
(6) 40 CFR 60.546(c)
(7) 40 CFR 60.547
(8) 40 CFR 60.548

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the tread end cementing process, green tire spray operation and WSW protectant spray operation except as otherwise specified in 40 CFR Part 60, Subpart BBB (3B).

There are no applicable performance testing requirements for this NSPS.

This is an existing applicable requirement and no change has been made in this second renewal.

(g) The requirements of the NSPS for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII (4I)) are still not included in the permit for the two diesel fire pumps and the wastewater treatment plant emergency generator because the engines were constructed prior to July 11, 2005.

(h) The requirements of the NSPS for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60, Subpart JJJJ (4J)) are still not included in the permit for the two diesel fire pumps and the wastewater treatment plant emergency generator because the engines are not spark ignition internal combustion engines.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(i) This source is still subject to the NESHAP: Rubber Tire Manufacturing (40 CFR Part 63, Subpart XXXX (4X)), which is incorporated by reference as 326 IAC 20-55, because the source is a rubber tire manufacturing facility and is located at a major source of HAPs.

The following units are subject to this rule:

(1) One (1) Banbury mixing area, identified as EU-02;

(2) One (1) component preparation area, identified as EU-03;

(3) Tread end cementing process, identified as EU-04;

(4) Tire curing process, identified as EU-05;

(5) One (1) tire uniformity optimizer (TUO) module area, identified as EU-06;

(6) One (1) green tire spray operation;

(7) One (1) white sidewall (WSW) protectant spray operation; and

(8) One (1) tire building area.

The source is subject to the following portions of Subpart XXXX (4X):

(1) 40 CFR 63.5980
(2) 40 CFR 63.5981(a)
(3) 40 CFR 63.5982(a),(b)(1),(b)(4),(e)
(4) 40 CFR 63.5983(b)
(5) 40 CFR 63.5984
(6) 40 CFR 63.5985(b)
(7) 40 CFR 63.5990(a),(b)
(8) 40 CFR 63.5994(a),(b)(1)-(2), (d)(2)
(9) 40 CFR 63.5996
(10) 40 CFR 63.6003(a),(b)
(11) 40 CFR 63.6004(a),(b)
(12) 40 CFR 63.6009(a),(e)(1), (f)
(13) 40 CFR 63.6010(a),(b)(3)-(5),(c)(1)-(5),(c)(7),(d),(e),(g)
(14) 40 CFR 63.6011(a),(b)
(15) 40 CFR 63.6012
(16) 40 CFR 63.6013
(17) 40 CFR 63.6014
(18) 40 CFR 63.6015
(19) Table 1 to Subpart XXXX of Part 63
(20) Table 6 to Subpart XXXX of Part 63
(21) Table 9 to Subpart XXXX of Part 63
(22) Table 10 to Subpart XXXX of Part 63
(23) Table 15 to Subpart XXXX of Part 63
(24) Table 16 to Subpart XXXX of Part 63
(25) Table 17 to Subpart XXXX of Part 63

The provisions of 40 CFR Part 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 63 Subpart XXXX (4X).

There are no applicable performance testing requirements for this NESHAP.

This is an existing applicable requirement and no change has been made in this second renewal.

(j) The two diesel fire pumps and the wastewater treatment plant emergency generator are subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ (4Z)), which is incorporated by reference as 326 IAC 20-82, because these units are stationary reciprocating internal combustion engines at a major source of HAPs.

The following units are subject to this rule:

(1) Two (2) diesel fire pumps, identified as #1 and #2, installed in 1973, using No. 2 fuel oil, each with a maximum capacity of 275 hp ;and

(2) One (1) wastewater treatment plant emergency generator, installed in 2003, using No. 2 fuel oil, with a maximum capacity of 147 hp;

The source is subject to the following portions of Subpart ZZZZ (4Z):

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1) and (c)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6604(b)
(7) 40 CFR 63.6605
(8) 40 CFR 63.6625(e)(2), (f), (h), (i)
(9) 40 CFR 63.6635
(10) 40 CFR 63.6640(a), (b), (e), and (f)
(11) 40 CFR 63.6645(a)(5)
(12) 40 CFR 63.6650
(13) 40 CFR 63.6655(e)(2), (f)(1)
(14) 40 CFR 63.6660
(15) 40 CFR 63.6665
(16) 40 CFR 63.6670
(17) 40 CFR 63.6675
(18) Table 2c to Subpart ZZZZ of Part 63
(19) Table 6 to Subpart ZZZZ of Part 63
(20) Table 7 to Subpart ZZZZ of Part 63
(21) Table 8 to Subpart ZZZZ of Part 63

The provisions of 40 CFR Part 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 Part 63 Subpart ZZZZ (4Z).

There are no applicable performance testing requirements for this NESHAP.

This is a new applicable requirement for the source.

(k) Boilers #1, #2, #3, and #5, the hot water heating system, and fire system water tank heating boiler are subject to the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63, Subpart DDDDD (5D)), which is incorporated by reference as 326 IAC 20-95, because these units are industrial boilers, as defined in 40 CFR 63.7575, that are located at a major source of HAPs.

The following units are subject to this rule:

(1) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boilers, identified as Boiler #1, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(2) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boilers, identified as Boiler #2, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 109;

(3) One (1) natural gas fired boiler, identified as Boiler #3, constructed in 1961, with a maximum heat input capacity of 53 million Btu per hour, using no control, and exhausting to stack 114;

(4) One (1) natural gas, No. 2 fuel oil, No. 6 fuel oil, or fuel oil blend fired boiler, identified as Boiler #5, constructed in 1974, with a maximum heat input capacity of 130 million Btu per thermal, using no control, and exhausting to stack 257.

(5) One (1) natural gas-fired hot water heating system, installed in 2004, with a maximum input capacity of 0.18 million Btu per hour;

(6) One (1) fire system water tank heating boiler, installed in 2003, using No. 2 fuel oil, with a maximum throughput of 1.54 MMBtu/hr; and

The source is subject to the following portions of Subpart DDDDD (5D):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490
(4) 40 CFR 63.7491
(5) 40 CFR 63.7495(b), (d)
(6) 40 CFR 63.7499
(7) 40 CFR 63.7500
(8) 40 CFR 63.7501
(9) 40 CFR 63.7505
(10) 40 CFR 63.7510
(11) 40 CFR 63.7515
(12) 40 CFR 63.7520
(13) 40 CFR 63.7521
(14) 40 CFR 63.7522
(15) 40 CFR 63.7525
(16) 40 CFR 63.7530
(17) 40 CFR 63.7533
(18) 40 CFR 63.7535
(19) 40 CFR 63.7540
(20) 40 CFR 63.7541
(21) 40 CFR 63.7545
(22) 40 CFR 63.7550
(23) 40 CFR 63.7555
(24) 40 CFR 63.7560
(25) 40 CFR 63.7565
(26) 40 CFR 63.7570
(27) 40 CFR 63.7575
(28) Table 2 to Subpart DDDDD of Part 63
(29) Table 3 to Subpart DDDDD of Part 63
(30) Table 4 to Subpart DDDDD of Part 63

(31) Table 5 to Subpart DDDDD of Part 63
(32) Table 6 to Subpart DDDDD of Part 63
(33) Table 7 to Subpart DDDDD of Part 63
(34) Table 8 to Subpart DDDDD of Part 63
(35) Table 9 to Subpart DDDDD of Part 63
(36) Table 10 to Subpart DDDDD of Part 63
(37) Table 11 to Subpart DDDDD of Part 63

The provisions of 40 CFR Part 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 Part 63 Subpart DDDDD (5D).

This is a new applicable requirement for the source.

State Rule Applicability - Entire Source

(a) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the Potential to Emit After Issuance section above.

(b) 326 IAC 2-4.1-1 (New Source Toxics Control)
This source is not subject to the requirements of 326 IAC 2-4.1-1 because it was constructed before July 27, 1997 and is subject to NESHAP 40 CFR Part 63, Subpart XXXX, which was issued pursuant to Section 112(d) of the CAA.

(c) 326 IAC 2-6 (Emission Reporting)
This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 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 less than 250 tons per year; and the potential to emit of CO, NO_x, and SO_2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2013 and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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

(e) 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.

(f) 326 IAC 6.8 PM Limitations for Lake County
This source is not subject to 326 IAC 6.5 because it is not located in Lake County.

(g) 326 IAC 6-4 (Fugitive Dust Emissions)
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.

(h) 326 IAC 6-5 (Fugitive Particulate Matter Limitations)
The source is not subject to the requirements of 326 IAC 6-5 because it has potential fugitive particulate matter emissions less than twenty-five (25) tons per year

(i) 326 IAC 8-5-4 (VOC Rules: Pneumatic Rubber Tire Manufacturing)
This source is not subject to the requirements of 326 IAC 8-5-4 (Pneumatic Rubber Tire Manufacturing) because the source is a located in Allen County and did not commence construction between January 1, 1980 and January 20, 1983.

State Rule Applicability – Individual Facilities

Carbon black/silica filler unloading and transfer area (EU-01)

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e)(3), the allowable particulate emission rate from the carbon black/silica filler unloading and transfer area (EU-01) shall not exceed 17.2 pounds per hour when operating at a process weight rate of 8.51 tons per hour.

The pounds per hour limitations were calculated by the following:

Interpolation of the data for process weight rates in excess of 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 = 8.51 tons of filler per hour

The five (5) integral baghouses shall be in operation at all times when carbon black/silica filler unloading and transfer area (EU-01) is in operation, in order to comply with this limit.

Banbury mixing area (EU-02)

(b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e)(3), the allowable particulate emission rate from the Banbury mixing area (EU-02) shall not exceed 33.8 pounds per hour when operating at a process weight rate of 23.33 tons per hour.

The pounds per hour limitations were calculated by the following:

Interpolation of the data for process weight rates 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 = 23.33 tons of rubber, carbon black, silica, silane binder, and other chemicals per hour

The three (3) baghouses shall be in operation at all times when Banbury mixing area (EU-02) is in operation, in order to comply with this limit.

(c) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

(1) 1961 and 1968 (Original construction and modification)

The Banbury mixing area is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980.

(2) 2007 (New mixing mill added to line #3)
The addition of a new mixing mill to the Banbury mixing area in 2007 did not change the potential to emit, as determined in Administrative Amendment # 003-24257-00008, issued in 2007. Therefore, 326 IAC 8-1-6 does not apply to this modified unit.

(3) 2008 (Initial use of silica and silane)
The modification to include the use of silane and silica binder in 2008 does not constitute a new unit in the Banbury mixing area. Therefore 326 IAC 8-1-6 does not apply to this modification.

(3) 2013 (Increase use of silica and silane)
The modification to increase the use of silane and silica binder approved in 2013 does not constitute a new unit in the Banbury mixing area. Therefore 326 IAC 8-1-6 does not apply to this modification.

<u>Component preparation area (EU-03)</u>

(d) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Milling operation

(1) 1974 (Original construction date)
The component preparation area - milling operation is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980 and the facility has a potential to emit less than 25 tons of VOC per year.

(2) 2007 (New stand-along mill)
The addition of a new stand-alone mill to the component preparation area - milling operation in 2007 did not change the potential to emit, as determined in Administrative Amendment # 003-24257-00008, issued in 2007. Therefore, 326 IAC 8-1-6 does not apply to this modified unit.

Calendering

(3) 1974 (Original construction date)
The component prep area - calendering operation is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980 and the facility has a potential to emit less than 25 tons of VOC per year.

Extruding

(4) 1974 (Original construction date)
The component prep area - extruding operation is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980 and the facility has a potential to emit less than 25 tons of VOC per year.

(5) 2008, 2010 and 2011 (New units added)
The addition of new units to the component prep area - extruding operation in 2008, 2010, and 2011 did not have potential to emit greater than 25 tons of VOC per year. Therefore 326 IAC 8-1-6 does not apply these modified units.

Ink Marking

(6) 1974 (Original construction date)
The component prep area (EU-03) - ink marking operation is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980 and the facility has a potential to emit less than 25 tons of VOC per year.

Tread end cementing process (EU-04)

(e) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Tread end cementer #1 (1990 construction date), Tread end cementer #2 (1991 construction date), and Guilin tread end cementer (2011 construction date)

(1) Pursuant to 326 IAC 8-1-6, each tread end cementer is considered a new facility because they were constructed after January 1, 1980 and they are not regulated by any other rules in 326 IAC 8.

(i) When the construction permit (CP 003-5711) was issued for tread end cementer #1 on February 10, 1997, the potential to emit of VOC was calculated at 24.64 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

(ii) When the construction permit (CP 003-2138) was issued for tread end cementer #2 on September 13, 1991, the potential to emit of VOC was calculated at 10.2 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

(iii) When the minor source modification (003-29925-00008) was issued for the Guilin tread end cementer on December 22, 2010, the potential to emit of VOC was calculated at 5.92 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

However, based on additional information and calculations provided by the source on July 30, 2013, the unlimited potential to emit VOC before control of each of the three (3) tread end cementers is now calculated at greater than twenty-five (25) tons of VOC per year. Therefore, they are now subject to 326 IAC 8-1-6.

Pursuant to 326 IAC 8-1-6:

(i) VOC emissions after control shall be limited to less than 5.25 grams per tread.

(ii) One of the four boilers (#1, #2, #3 or #5) shall be in operation and controlling VOC emissions at all times the three (3) tread end cementers are in operation, in order to comply with this limit.

See Appendices B and C for the full BACT determination.

Note: This is a new requirement in this renewal. Prior to this renewal, tread end cementer #157 was subject to a source-specific RACT (pursuant to 326 IAC 8-1-5), and was therefore not subject to 326 IAC 8-1-6. However, this unit was removed from the source prior to receiving Part 70 Operating Permit T003-5941-00008, issued on October 16, 2000.

Mud room (1961 construction date)

(2) The mud room is not subject to the requirements of 326 IAC 8-1-6 because the facility was constructed prior to January 1, 1980 and the facility has a potential to emit less than twenty-five (25) tons of VOC per year.

Tire curing process (EU-05)

(f) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

The tire curing process (EU-05) consists of 204 curing presses:

One hundred forty (150) presses were constructed in 1961, twenty-eight (28) presses were constructed in 2005, sixteen (16) presses were constructed in 2007, and ten (10) presses will be constructed in 2014 through 2016, which were approved for construction in 2011, and they have a total combined potential to emit greater than twenty-five (25) tons of VOC per year.

The 150 presses are not subject to 326 IAC 8-1-6 because they were constructed prior to 1980.

Each press constructed in 2005, 2007 and 2011 is considered an individual facility, and has VOC potential emissions less than twenty-five (25) tons of VOC per year. This determination was made in Significant Permit Modifications #003-21271-00008, issued in 2006 and #003-24944-00008, issued in 2007. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to these units.

Tire uniformity optimizer (TUO) module area (EU-06)

(g) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e)(3), the allowable particulate emission rate from the white sidewall (WSW) grinding area and the RIS grinding area shall not exceed 28.0 and 9.5 pounds per hour when operating at a process weight rate of 17.61 and 3.52 tons per hour, respectively.

The pounds per hour limitations were calculated by the following:

Interpolation of the data for process weight rates 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
$P_{WSW\ grinding}$ = process weight rate in tons per hour = 17.61 tons of rubber per hour
$P_{RIS\ grinding}$ = process weight rate in tons per hour = 3.52 tons of rubber per hour

The twenty-one (21) centrifugal separators shall be in operation at all times when this facility is in operation, in order to comply with this limit.

(h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Initial construction (1961) and Modification (2003)
The tire uniformity optimizer (TUO) module area (EU-06) is not subject to the requirements of 326 IAC 8-1-6 because the unlimited potential VOC emissions are less than twenty-five (25) tons per year.

Boilers #1, #2, #3, and #5 (EU-07)

(i) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Boilers #1, #2, #3, and #5 were each constructed prior to September 21, 1983 and the source is not located in Lake, Porter, Marion, Boone, Hamilton, Hendricks, Johnson, Morgan, Shelby, and Hancock Counties. Therefore, pursuant to 326 IAC 6-2-3(a), the particulate emission limitation shall be calculated as following:

$$Pt = \frac{C * a * h}{76.5 * Q^{0.75} * N^{0.25}}$$

Where: C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter (μ/m^3) for a period not to exceed a sixty (60) minute time period.

Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour (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 operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input.

h = Stack height in feet

For Boilers #1, #2, #3, constructed prior to June 8, 1972:

C = 50 μ/m^3
Q = 156 MMBtu/hr
N = 2 (Stacks 109 and 114)
a = 0.67
h = 72 ft (Stacks 109, 114, and 257)
Pt = 0.60 lb PM/MMBtu

For Boilers #5 constructed prior to September 21, 1983:

C = 50 μ/m^3
Q = 286 MMBtu/hr
N = 3 (Stacks 109, 114, and 257)
a = 0.67
h = 72 ft (Stacks 109, 114, and 257)
Pt = 0.34 lb PM/MMBtu

The estimated PM emissions for the Boilers #1, #2, and #5 are calculated as follows when combusting No. 6 fuel oil (worst case):

17.0 lb PM/kgal No. 6 fuel oil (AP-42 Ch. 1.3 Emission Factor) * 1 kgal No. 6 fuel oil/150 MMBtu (heating value) = 0.113 lb PM/MMBtu

The estimated PM emissions for the Boilers #3 are calculated as follows when combusting natural gas:

PM = 1.9 lb PM/MMCF (AP-42 Ch. 1.4 EFactor)* 1 MMCF/1020 MMBtu (High Heat Value)
= 0.0019 lb PM/MMBtu
= 0.0019 lb PM/MMBtu

Therefore, all boilers are able to comply with these limits.

(j) 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

(1) Boilers #1, #2, and #5 are each subject to 326 IAC 7-1.1-1 because the potential to emit SO_2 is greater than twenty-five (25) tons per year when combusting No. 6 fuel oil. Pursuant to 326 IAC 7-1.1-2, the SO_2 emissions from Boilers #1, #2, and #5 shall not exceed:

(i) One and six-tenths (1.6) pounds per MMBtu when combusting residual fuel oil; and

(ii) Five-tenths (0.5) pounds per MMBtu when combusting distillate fuel oil.

Note: Residual fuel oil is No. 6 fuel oil. Distillate fuel oil is No. 2 fuel oil and diesel fuel.

(2) Boiler #3 is not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide is less than twenty-five (25) tons per year and ten (10) pounds per hour.

(k) 326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
Boilers #1, #2, #3, and #5 are not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there are no applicable emission limits for the source under 326 IAC 9-1-2.

<u>Green tire spray and white sidewall (WSW) protectant spray operations</u>

(l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The green tire spray and WSW protectant spray operations are subject to the requirements of 326 IAC 6-3-2 because they are considered surface coating by applying a functional and/or protective coating and each has the potential to use greater than five (5) gallons of coating per day.

Pursuant to 6-3-2(d), the green tire spray and WSW protectant spray operations shall be controlled by a dry particulate filter, washwater, or an equivalent control device and shall operate the control device in accordance with the manufacturer's specifications.

The green tire spray operation is controlled by baffle filters, and the WSW protectant spray operation is controlled by centrifugal separators. Therefore, the source is able to comply with this rule.

(m) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

(1) The green tire spray was constructed in 1961 (which is before the applicability date of 1980) and has unlimited potential VOC emissions less than twenty-five (25) tons per year, therefore it is not subject to 326 IAC 8-1-6.

(2) The WSW spray operation was constructed in 1961 (which is before the applicability date of 1980) and has unlimited potential VOC emissions less than twenty-five (25) tons per year, therefore it is not subject to 326 IAC 8-1-6.

<u>Insignificant combustion units</u>

(n) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The hot water heating system and the fire system water tank heating boiler were each installed after September 21 1983. Therefore, pursuant to 326 IAC 6-2-4(a), the particulate emission limitation shall be calculated as following:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).
Q = Total source maximum operating capacity rating in million Btu per hour (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 operation permit application, except when

some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For the fire system water tank heating boiler, installed in 2003:

Q = 287.54 MMBtu/hr
Pt = 0.25 lb PM/MMBtu

For the hot water heating system, installed in 2004:

Q = 287.72 MMBtu/hr
Pt = 0.25 lb PM/MMBtu

The estimated PM emissions for the fire system water tank heating boiler are calculated as follows when combusting No. 2 Fuel Oil:

2.0 lb PM/kgal No. 2 fuel oil (AP-42 Ch. 1.3 Emission Factor) * 1 kgal No. 2 fuel oil/140 MMBtu (heating value) = 0.113 lb PM/MMBtu

The estimated PM emissions for the hot water heating system are calculated as follows when combusting natural gas:
1.9 lb PM/MMCF (AP-42 Ch. 1.4 Emission Factor) * 1 MMCF/1020 MMBtu (High Heat Value) = 0.0019 lb PM/MMBtu = 0.0019 lb PM/MMBtu

Therefore, all boilers are able to comply with these limits.

(o) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
The insignificant combustion units are not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide from each unit is less than twenty-five (25) tons per year and ten (10) pounds per hour.

(p) 326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
The insignificant combustion units are not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there are no applicable emission limits for the source under 326 IAC 9-1-2.

<u>Insignificant abrasive blasters</u>

(l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(1) Pursuant to 326 IAC 6-3-1(b)(14), the Guyson blaster is exempt from 326 IAC 6-3-2 because it has potential PM emissions less than five hundred fifty-one thousandths (0.551) pounds per hour.

(2) Pursuant to 326 IAC 6-3-2(e)(3), the allowable particulate emission rate from the Econoline blaster and Pangborn blaster shall not exceed 1.83 and 2.40 pounds per hour when operating at process weight rates of 0.30 and 0.45 tons per hour, respectively.

The pounds per hour limitations were calculated by the following:

Interpolation of the data for process weight rates 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
$P_{Econoline}$ = process weight rate in tons per hour

= 500 pounds of tire molds per hour + 100.4 pounds of abrasive per hour) / 2000 pounds/ton
= 0.30 tons per hour

$P_{Pangborn}$ = process weight rate in tons per hour
= 500 pounds of tire molds per hour + 401.5 pounds of abrasive per hour) / 2000 pounds/ton
= 0.45 tons per hour

The fabric filters shall be in operation at all times when this facility is in operation, in order to comply with this limit.

Insignificant degreasing activities

(q) 326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements)
Pursuant to 326 IAC 8-3-1(c)(1)(B), the insignificant degreasing activities are subject to 326 IAC 8-3-2(a) because they are degreasers constructed after January 1, 1980 and located anywhere in the state. Pursuant to 326 IAC 8-3-1(c)(2)(A)(ii), the insignificant degreasing activities are not subject to 326 IAC 8-3-2(b) because they were constructed prior to January 1, 1990 and are located in Allen County.

Pursuant to 326 IAC 8-3-2(a), the owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

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 testing requirements applicable to this source are as follows:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
Carbon black/silica filler unloading & transfer area (EU-01)	One (1) baghouse for unloading and one (1) of four (4) baghouses for transfer	180 days after issuance of this permit renewal	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Banbury mixing operation (EU-02)	One (1) of three (3) baghouses	180 days after issuance of this permit renewal	PM, PM_{10},	Once every 5 years
TUO module area (EU-06) - WSW grinding	One (1) of four (4) centrifugal separators	180 days after issuance of this permit renewal	PM	Once every 5 years
Tread end cementers (#1, #2, and Guilin) (EU-04)	One (1) of the four (4) bolers (#1, #2, #3, and #5)	180 days after issuance of this permit renewal	VOC	Once every 5 years
Boiler #5 - when using No. 6 fuel oil	N/A	Five (5) years from the last valid stack test or three (3) months after switching to No. 6 fuel oil	Opacity	Once every 5 years

These testing requirements are necessary because of the following:

<u>Carbon black/silica filler unloading & transfer area (EU-01)</u>

(a) The PM, PM_{10}, and $PM_{2.5}$ testing requirements for the carbon black/silica filler unloading & transfer area (EU-01) are necessary because the baghouses must operate properly to demonstrate compliance with 326 IAC 6-3-2 and the emission limits to render 326 IAC 2-2 not applicable. Although the baghouses are integral to the process, the carbon black/silica filler unloading & transfer area (EU-01) is a significant source of PM, PM_{10}, and $PM_{2.5}$ emissions before control and the baghouses require at least 99.5% overall control efficiency to comply with the specified limits. Stack testing shall be repeated once every five (5) years on the one (1) of the baghouse controlling filler unloading and one (1) of the four (4) baghouses controlling filler transfer. A different baghouse controlling filler transfer shall be tested every five (5) years.

This is a new requirement in this renewal.

<u>Banbury mixing area (EU-02)</u>

(b) The PM testing requirement for the Banbury mixing area (EU-02) is necessary because the three (3) baghouses must operate properly to demonstrate compliance with 326 IAC 6-3-2 and the emission limits to render 326 IAC 2-2 not applicable. The Banbury mixing area (EU-02) is a significant source of PM and PM_{10} emissions before control and the baghouses require at least 96.14% and 92.79%, respectively, overall control efficiency to comply with the specified limits. Stack testing shall be repeated one every five (5) years on one (1) of the three (3) baghouses controlling the Banbury mixing area (EU-02). A different baghouse controlling filler transfer shall be tested every five (5) years

Testing is not required for $PM_{2.5}$ emissions from these baghouses because they only need 61.03% overall control efficiency to comply with the $PM_{2.5}$ emission limit to render 326 IAC 2-2 not applicable.

This is a new requirement in this renewal.

Tread end cementers (EU-04)

(c) The VOC testing requirement for the three (3) tread end cementers (EU-04) is necessary because the boiler as a VOC control device must operate properly to demonstrate compliance with 326 IAC 8-1-6 and the VOC emission limit to render 326 IAC 2-2 not applicable. The tread end cementers are a significant source of VOC emissions before control and the boilers require at least 65% overall control efficiency to comply with the specified limits.

The last valid stack test of the boilers, conducted on February 8, 2006, measured an overall control efficiency of 70.67% for the boilers as a control device when operating at a 3-hour average temperature 951°F and a fan amperage of 6.8 to 7.0 amps. Although the average overall control efficiency was 70.67%, as measured during the last stack test, the minimum overall control efficiency used to calculate the BACT limit was 65% based on the minimum capture efficiency with a buffer of 3% to accommodate any variation in capture efficiency in future stack tests.

Testing was previously required for the tread end cementers, but these requirements were removed in Significant Permit Modification No.: 003-29089-00008, issued on November 23, 2010, when the unit-specific PSD Minor limit was removed for the tread end cementers. Testing requirement are now re-included in the permit.

TUO module (EU-06) - WSW grinding area

(d) The PM testing requirement for the TUO module (EU-06) - WSW grinding area is necessary because the four (4) centrifugal separators must operate properly to demonstrate compliance with 326 IAC 6-3-2 and the PM emission limit to render 326 IAC 2-2 not applicable. The TUO module (EU-06) - WSW grinding area is a significant source of PM emissions before control and the centrifugal separators requires at least 84.15% overall control efficiency to comply with the specified limits. Stack testing shall be repeated once every five (5) years one (1) of the four (4) centrifugal separators. A different centrifugal separator shall be tested every five (5) years

Testing is not required for PM_{10} and $PM_{2.5}$ emissions from these centrifugal separators because they only need 57.85% and 15.70%, respectively, overall control efficiency to comply with the PM_{10} and $PM_{2.5}$ emission limits to render 326 IAC 2-2 not applicable.

This is a new requirement.

TUO module (EU-06) - RIS grinding area

(e) Testing is not required for PM emissions for the seventeen (17) centrifugal separators controlling the TUO module (EU-06) - RIS grinding area because they only need 63.4% overall control efficiency to comply with the PM emission limit to render 326 IAC 2-2 not applicable.

Testing is not required for PM_{10} and $PM_{2.5}$ emissions from these centrifugal separators because there is no PM_{10} or $PM_{2.5}$ emission limit required for this unit to render 326 IAC 2-2 not applicable.

Boiler #5

(f) Opacity testing is required for Boiler #5 when using No. 6 fuel oil in order to demonstrate compliance with 326 IAC 5-1-2.

Abrasive blasters

(g) Testing is not required for PM, PM_{10}, and $PM_{2.5}$ emissions for the three (3) abrasive blasters because there are no emission limits for the Guyson blaster and the Econoline and Pangborn blasters only need 60.1% and 62.6% overall control efficiency to comply with the PM, PM_{10}, and $PM_{2.5}$ emission limits to render 326 IAC 2-2 not applicable

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

Emission Unit	Control Device	Parameter	Frequency
Carbon black/silica filler unloading and transfer area (EU-01)	Four (4) baghouses	Visible Emissions	Once per day
Banbury mixing area (EU-02)	Three (3) baghouses	Visible Emissions	Once per day
		Pressure Drop	
Tread end cementers #1, #2, and Guilin (EU-04)	One (1) of the four (4) bolers (#1, #2, #3, and #5)	Temperature	Continuous and 3-hr average
		Fan amperage	Daily
TUO module area (EU-06) - WSW Grinding and WSW protectant spray operation	Four (4) centrifugal separators	Visible Emissions	Once per day
TUO module area (EU-06) - RIS Grinding	Seventeen (17) centrifugal separators	Visible Emissions	Once per day
Green tire spray operation	Baffle filters	Filter Check	Once per week
		Overspray observation	Once per week
		Stack exhaust observations	Once per month
Boilers (#1, 2, 5) (EU-07)	None	Visible Emissions (when using No.2 or No. 6 fuel oil only)	Once per day

These monitoring conditions are necessary because of the following:

(a) Baghouses for the carbon black/silica filler unloading and transfer area (EU-01) and Banbury mixing area (EU-02) and centrifugal separators for the TUO module (EU-06) - WSW grinders must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 40 CFR 64 (CAM) and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(b) Centrifugal separators for the TUO module (EU-06) - RIS grinders and WSW protectant spray operation and baffle filters for the green tire spray operation must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) Boilers #1, #2, #3, and/or #5 must operate properly as a VOC control device for the three (3) tread end cementers (EU-04) to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(d) Boilers #1, #2, and #5 must operate properly to ensure compliance with 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating). The requirment to submit a natural gas boiler certification for the boilers has been removed in this renewal.

There are no monitoring requirements for fabric filters controlling the abrasive blasters because they vent indoors.

Semi-Annual Reporting:

The source is required to submit semi-annual reports to document compliance with the VOC, NO_x, and SO_2 emission limits to render 326 IAC 2-2 (PSD) not applicable and the VOC input limit to render 326 IAC 8-1-6 not applicable to the three (3) tread end cementers. Reporting is semi-annual rather than quarterly as agreed upon by IDEM in the initial Part 70 Operating Permit T003-5974-00008, issued on October 16, 2000.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and 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.

Applications for the purposes of this review were received on November 30, 2012 and October 1, 2013. Additional information was received on March 17, 2013, March 28, 2013, April 9, 2013, April 25, 2013, and May 5, 2013, June 12, 2013, July 30, 2013, and August 13, 2013.

Conclusion

The operation of this stationary rubber tire manufacturing plant shall be subject to the conditions of the Part 70 Significant Source Modification No. 003-33726-00008 and Part 70 Operating Permit Renewal No. 003-32577-00008.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Ryan Graunke at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Summary of Emissions - Unlimited PTE

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Unlimited Potential to Emit (ton/yr)

Process	Emission Unit ID	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	GHG as CO_2e	Total HAPs	Lead	Single HAPs	
Carbon black/silica filler unloading & transfer area*	EU-01	11.19	8.81	2.99	-	-	-	-	-	-	-	-	-
Banbury mixing area**	EU-02	341	182	33.7	-	-	93.32	-	-	12.07	0.004	7.89	Methylene Chloride
Component prep - milling	EU-03	-	-	-	-	-	24.28	-	-	4.43	-	2.41	Isophorone
Component prep - calendering		-	-	-	-	-	3.58	-	-	0.82	-	0.25	Toluene
Component prep - extruding		-	-	-	-	-	1.98	-	-	5.67	-	2.12	Methylene Chloride
Component prep - marking ink		-	-	-	-	-	7.20	-	-	1.57	-	1.57	Diethylene Glycol mono Butyl Ether
Tread end cementing	EU-04	-	-	-	-	-	233.49	-	-	-	-	-	-
Mud room		-	-	-	-	-	12.10	-	-	-	-	-	-
Tire curing process**	EU-05	-	-	-	-	-	83.76	-	-	21.80	-	6.91	Total Xylenes (o-Xylene, m-Xylene + p-Xylene
TUO module - WSW grinding	EU-06	519.6	103.9	52.0	-	-	8.26	-	-	0.60	0.008	0.21	Aniline
TUO module - RIS grinding		36.64	7.33	3.66	-	-	0.58	-	-	0.04	0.001	0.01	Aniline
Green tire spray	N/A	13.71	13.71	13.71	-	-	3.92	-	-	-	-	-	-
WSW protectant spray	N/A	7.55	7.55	7.55	-	-	0.34	-	-	-	-	-	-
Boilers (#1, 2, 3, 5)***	EU-07	116.6	99.9	60.2	1609	367.8	6.75	103.1619	229,509	2.32	0.000	2.21	Hexane
Hot water heater (natural gas)	Insig.	0.0015	0.0059	0.0059	0.0005	0.077	0.0043	0.0649	93	0.0015	3.86E-07	0.0014	Hexane
Fire system boiler (No. 2 fuel oil)		0.09636	0.115	0.103	3.421	0.964	0.027	0.241	1,079	2.36E-06	4.34E-07	7.23E-07	Selenium
Fire pumps and wastewater emergency generator (No. 2 fuel oil)		0.38	0.38	0.38	0.36	5.40	0.44	1.16	201	0.0047	-	0.0014	Formaldehyde
Abrasive blasters		22.00	15.40	15.40									
Tanks		-	-	-	-	-	0.37	-	-	-	-	-	-
Other insignificant activities		0.04	0.04	0.04			0.62			1.32E-02	-	0.012	Manganese
Unpaved roads	Fugitive	1.57	0.36	0.04	-	-	-	-	-	-	-	-	-
Paved roads		4.57	0.91	0.22	-	-	-	-	-	-	-	-	-
Total		**1,075**	**441**	**190**	**1,613**	**374.2**	**481.0**	**104.6**	**230,882**	**49.3**	**0.013**	**11.9**	**Methyl-Isobutyl-Ketone**

*The baghouses for the carbon black/silica filler unloading & transfer area are considered integral to the process. Therefore, the permit level determination is based on the emissions after control for this unit.
**Includes VOC emissions due to the increased use of silane as modified in Significant Source Modification (#003-32933-00008)
***Natural gas is the worst-case fuel for VOC, CO, and HAPs. For all other pollutants, No. 6 Fuel Oil is worst case fuel for Boilers #1, 2 and 5

Appendix A: Emissions Calculations
Summary of Emissions - Limited PTE

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Limited Potential to Emit (ton/yr)

Process	Emission Unit ID	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	GHG as CO_2e	Total HAPs	Lead	Single HAPs	
Carbon black/silica filler unloading & transfer area	EU-01	11.19	8.81	2.99	-	-	-	-	-	-	-	-	-
Banbury mixing area	EU-02	13.1	13.1	13.1	-	-	241.7	-	-	12.07	0.004	7.89	Methylene Chloride
Component prep - milling	EU-03	-	-	-	-	-		-	-	4.43	-	2.41	Isophorone
Component prep - calendering		-	-	-	-	-		-	-	0.82	-	0.25	Toluene
Component prep - extruding		-	-	-	-	-		-	-	5.67	-	2.12	Methylene Chloride
Component prep - marking ink		-	-	-	-	-		-	-	1.57	-	1.57	Diethylene Glycol mono Butyl Ether
Tread end cementing	EU-04	-	-	-	-	-		-	-	-	-	-	-
Mud room		-	-	-	-	-		-	-	-	-	-	-
Tire curing process	EU-05	-	-	-	-	-		-	-	21.80	-	6.91	Total Xylenes (o-Xylene, m-Xylene + p-Xylene
TUO module - WSW grinding	EU-06	82.3	43.8	43.8	-	-		-	-	0.60	0.008	0.21	Aniline
TUO module - RIS grinding		13.4	7.33	3.66	-	-		-	-	0.04	0.001	0.01	Aniline
Green tire spray	N/A	3.43	3.43	3.43	-	-		-	-	-	-	-	-
WSW protectant spray	N/A	*	*	*	-	-		-	-	-	-	-	-
Boilers (#1, 2, 3, 5)	EU-07	116.6	99.9	60.2	249.9	249.9	6.75	103.2	229,509	2.32	0.0001	2.21	Hexane
Hot water heater (natural gas)	Insig.	0.0015	0.0059	0.0059			0.0043	0.06	93	0.0015	3.86E-07	0.0014	Hexane
Fire system boiler (No. 2 fuel oil)		0.09636	0.115	0.103			0.027	0.24	1,079	2.36E-06	4.34E-07	7.23E-07	Selenium
Fire pumps and wastewater emergency generator (No. 2 fuel oil)		0.38	0.38	0.38			0.44	1.16	201	0.0047	-	0.00144	Formaldehyde
Abrasive blasters		8.34	8.34	8.34	-	-	-	-	-	-	-	-	-
Tanks		-	-	-		-	0.37	-	-	-	-	-	-
Other insignificant activities		0.04	0.04	0.04	-	-	0.62	-	-	0.013	-	0.012	Manganese
Unpaved roads	Fugitive**	1.57	0.36	0.04	-	-	-	-	-	-	-	-	-
Paved roads		4.57	0.91	0.22	-	-	-	-	-	-	-	-	-
Total		**249.0**	**185.3**	**136.1**	**249.9**	**249.9**	**249.9**	**104.6**	**230,882**	**49.3**	**0.013**	**11.9**	Methylene Chloride

*Limited PM and PM_{10} emissions from the WSW protectant spray are included in the limits for TUO module - WSW grinding as they vent to the same centrifugal separators.

**Fugitive emissions are not included in the total limited PTE because they are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Appendix A: Emissions Calculations
HAPs summary

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Process	Emission Unit ID	Aniline	Carbon disulfide	Chromium	Diethylene Glycol Mono Butyl Ether	Ethyl benzene	Formaldehyde	Hexane	Hydroquinone	Isophorone	Lead	Methylene chloride	Methyl-Isobutyl-Ketone	Manganese	Nickel	Selenium	Toluene	Total Xylenes (o-Xylene, m-Xylene + p-Xylene	**Total HAPs**
Carbon black/silica filler unloading & transfer area	EU-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Banbury mixing area	EU-02	0.098	0.782	-	-	0.883	-	2.203	5.363	0.136	0.004	7.891	6.259	-	-	-	0.504	2.945	**12.074**
Component prep - milling	EU-03	1.144	0.081		-	0.017		0.053	-	2.410	-	0.146	1.961		-	-	0.080	0.055	**4.431**
Component prep - calendering		0.006	0.154		-	0.010		0.036	0.002	0.008	-	0.003	0.041		-	-	0.251	0.018	**0.815**
Component prep - extruding		0.082	0.043		-	0.057		0.401	-	0.010	-	2.122	0.892		-	-	1.490	0.084	**5.671**
Component prep - marking ink		-	-	-	1.57	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.57**
Tread end cementing	EU-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Mud room		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Tire curing process	EU-05	0.896	2.715		-	2.777		1.228	-	0.004	-	1.156	2.715		-	-	3.394	6.912	**21.804**
TUO module - WSW grinding	EU-06	0.210	0.010		-	0.030		0.064	-	-	0.008	0.014	-	-	-	-	0.097	0.017	**0.602**
TUO module - RIS grinding		0.015	0.001		-	0.002		0.005	-	-	0.001	0.001	-	-	-	-	0.007	0.001	**0.042**
Green tire spray	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
WSW protectant spray	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Boilers (#1, 2, 3, 5)**	EU-07	-	-	-	-	-	0.242	2.211	-	-	0.0001	-	-	-	0.58	-	0.04		**2.32**
Hot water heater (natural gas)	Insig.	-	-	-	-	-	5.80E-05	0.0014	-	-	3.86E-07	-	-	-	1.62E-06	-	2.63E-06	-	**0.001**
Fire system boiler (No. 2 fuel oil)		-	-	-	-	-	-	-	-	-	4.34E-07	-	-	-	1.45E-07	7.23E-07	-	-	**2.36E-06**
Fire pumps and wastewater emergency generator (No. 2 fuel oil)		-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	4.99E-04	-	**0.0047**
Tanks		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other insignificant activities		-	-	0.0007	-	-	-	-	-	-	-	-	-	0.0116	0.000855	-	-	-	**0.0132**
Unpaved roads	Fugitive	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Paved roads		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Total		**2.45**	**3.79**	**0.0007**	**1.57**	**3.78**	**0.24**	**6.20**	**5.37**	**2.57**	**0.01**	**11.33**	**11.87**	**0.01**	**0.58**	**7.23E-07**	**5.87**	**10.03**	**49.35**

Notes:
Tire manufacturing emissions based on calculations provided by the source in the applications for Minor Source Modification (#003-29925-00008) and Significant Source Modification (#003-32933-00008)
This table show the ten highest HAPs and lead from tire building processes, other HAPs available from AP-42 Section 4.12
Additional HAPs for combustion activities are found on the respective pages of this appendix.

Appendix A: Emissions Calculations
Carbon black/silica filler unloading & transfer area - Particulate

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum material throughput (lb/hr):	17,028
Worst-case dusting rate:	3%
Conservative control efficiency:	99.5%

	Particle size fractions (% PM)	
	PM_{10}	$PM_{2.5}$
Measured	68.50%	23.20%
Worst-case	78.78%	26.68%

	Uncontrolled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	510.8	402.4	136.3
lb/day	12260.2	9658.1	3271.2
ton/yr	2237.5	1762.6	597.0

	Controlled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	2.55	2.01	0.68
lb/day	61.30	48.29	16.36
ton/yr	11.19	8.81	2.99

Notes:
These calculations are based on additional information provided by the source on June 12, 2013.
A filler transfer study at Michelin's US2 facility by NOL-TEC Systems, determined a 2% dusting rate for the entire transfer system's collective vents.
3% dusting rate is assumed as worst-case.
Particle size fractions and emission factors are based an outlet stack test at a similar Michelin Mixer 1 plant.
Worst-case assumption of particle size fraction is 15% greater than the measured particle size fraction .
Vendor specified control efficiency for these baghouses is 99.8%. 99.5% conservatively used.
Emissions are for all 5 baghouses.
The baghouses are integral to the process. Therefore, Controlled PTE is considered for permit level determination.

Methodology:
Worst-case particle size fraction = Measured particle size fraction * 115%
Uncontrolled PTE (lb/hr) = Maximum material throughput (lb/hr) * Worst-case dusting rate * Worst-case particle size fraction (if applicable)
Uncontrolled PTE (lb/day) = Uncontrolled PTE (lb/hr) * 24 hrs/day
Uncontrolled PTE (ton/yr) = Uncontrolled PTE (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Controlled PTE = Uncontrolled PTE * (1 - Control efficiency)

PSD Minor limits
Limits for each baghouse

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr/baghouse	0.51	0.40	0.14
ton/yr/baghouse	2.24	1.76	0.60

Limited emissions for entire process

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	2.55	2.01	0.68
ton/yr	11.19	8.81	2.99

Control efficiency needed		
PM	PM_{10}	$PM_{2.5}$
99.5%	99.5%	99.5%

Note:
Compliance with these limits will render 326 IAC 2-2 (PSD) not applicable.

Methodology:
Limited PTE (lb/hr) (each baghouse) = Controlled PTE (lb/hr) / 5 baghouses
Limited PTE (ton/yr) (each baghouse) = Limited emissions (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Limited PTE (entire process) = Limited emissions (each baghouse) * 5 baghouses
Control efficiency needed = 1 - (Limited emissions (lb/hr) / Uncontrolled PTE (lb/hr))

326 IAC 6-3-2 Compliance

Process weight rate (lb/hr)	Allowable emissions (lb/hr)	Controlled PTE of PM (lb/hr)	Control efficiency needed
17,028	17.2	2.55	96.6%

Methodology:
Allowable emission (lb/hr) = 4.10 * (Process weight rate (lb/hr) * 1 ton/2000 lbs)$^{0.67}$, pursuant to 326 IAC 6-3-2(e)
Control efficiency needed = 1 - (Allowable emissions (lb/hr) / Uncontrolled PTE (lb/hr))

Appendix A: Emissions Calculations
Banbury mixing area (EU-02) - Particulate

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum material throughput (lb/hr):	46,651	Total for 3 mixing lines
Inlet emission factor (lb PM/lb rubber)	1.67E-03	
Outlet emission factor (lb PM/lb rubber)	1.31E-05	

	Inlet particle size fractions (% PM)	
	PM_{10}	$PM_{2.5}$
Measured	46.51%	8.60%
Worst-case	53.48%	9.89%

	Outlet particle size fractions (% PM)	
	PM_{10}	$PM_{2.5}$
Measured	51.56%	12.02%
Worst-case	59.30%	13.82%

	Uncontrolled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	77.81	41.62	7.70
lb/day	1867.53	998.83	184.75
ton/yr	340.8	182.3	33.7

	Controlled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	0.61	0.36	0.08
lb/day	14.64	8.68	2.02
ton/yr	2.7	1.6	0.4

Notes:
These calculations are based on additional information provided by the source on June 12, 2013.
Particle size fractions and emission factors are based on a stack test at a similar facility and mixing worst-case carbon black and silica mixes.
Worst-case assumption of particle size fraction is 15% greater than the measured particle size fraction.
Emissions are for all 3 mixing lines.

Methodology:
Worst-case particle size fraction = Measured particle size fraction * 115%
Uncontrolled PTE (lb/hr) = Maximum material throughput (lb/hr) * Inlet emission factor (lb pollutant/lb rubber) * Worst-case inlet particle size fraction
Controlled PTE (lb/hr) = Maximum material throughput (lb/hr) * Outlet emission factor (lb pollutant/lb rubber) * Worst-case outlet particle size fraction
PTE (lb/day) = PTE (lb/hr) * 24 hrs/day
PTE (ton/yr) = PTE (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs

PSD Minor limits
Limits for each baghouse

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr/baghouse	1.00	1.00	1.00
ton/yr/baghouse	4.38	4.38	4.38

Limited emissions for entire process

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	3.00	3.00	3.00
ton/yr	13.14	13.14	13.14

Control efficiency needed		
PM	PM_{10}	$PM_{2.5}$
96.14%	92.79%	61.03%

Note:
Compliance with these limits will render 326 IAC 2-2 (PSD) not applicable.

Methodology:
Limited PTE (ton/yr) (each baghouse) = Limited emissions (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Limited PTE (entire process) = Limited emissions (each baghouse) * 3 baghouses
Control efficiency needed = 1 - (Limited emissions (lb/hr) / Uncontrolled PTE (lb/hr))

326 IAC 6-3-2 Compliance

Process weight rate (lb/hr)	Allowable emissions (lb/hr)	Controlled PTE of PM (lb/hr)	Control efficiency needed
46,651	33.8	0.61	56.5%

Methodology:
Allowable emission (lb/hr) = 4.10 * (Process weight rate (lb/hr) * 1 ton/2000 lbs)$^{0.67}$, pursuant to 326 IAC 6-3-2(e)
Control efficiency needed = 1 - (Allowable emissions (lb/hr) / Uncontrolled PTE (lb/hr))

Appendix A: Emissions Calculations
Banbury mixing area (EU-02) - VOC and HAPs

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum material throughput (lb/hr): 46,651 Total for 3 mixing lines

			HAPs											
	VOC without silane	VOC with silane*	Aniline	Carbon disulfide	Ethyl benzene	Hexane	Hydroquinone	Isophorone	Lead	Methylene chloride	Methyl-Isobutyl-Ketone	Toluene	Total Xylenes (o-Xylene, m-Xylene + p-Xylene	Total
Emission factor (lb pollutant/ lb rubber)	2.15E-04	4.57E-04	4.80E-07	3.83E-06	4.32E-06	1.08E-05	2.62E-05	6.63E-07	2.03E-08	3.86E-05	3.06E-05	2.47E-06	1.44E-05	5.91E-05
PTE (ton/yr)	43.966	93.325	0.098	0.782	0.883	2.203	5.363	0.136	0.004	7.891	6.259	0.504	2.945	12.074

Notes:
Calculations based on the application for Significant Source Modification (#003-32933-00008) received on March 11, 2013.
Emission factors are worst-case emission factors from AP-42 Section 4.12.
*VOC with silane emission factor is the worst-case AP-42 factor adjusted to accommodate VOC emissions from mixing rubber compounds with maximum silane usage, worst-case.
This formulation is claimed as confidential.
VOC emissions from silane are ethanol.
VOC emissions due to the use of silane were previously limited to 40 tons/yr from both EU-02 and EU-05 (SSM No. 003-26320-00008 and SPM No. 003-26647-00008).
This limit is no longer in the permit and silane usage is considered unlimited.
This table shows the ten highest HAPs and lead from rubber manufacturing, other HAPs available from AP-42 Section 4.12.

Methodology:
PTE (ton/yr) = Maximum material throughput (lb/hr) * Emission factor (lb pollutant/lb rubber) * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Component Prep (EU-03)

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

	Maximum material throughput (lb/hr):
Milling	49,080
Calendering	14,629
Extruding	36,762

			HAPs											
		VOC	Aniline	Carbon disulfide	Ethyl benzene	Hexane	Hydroquinone	Isophorone	Lead	Methylene chloride	Methyl-Isobutyl-Ketone	Toluene	Total Xylenes (o-Xylene, m-Xylene + p-Xylene	Total
Emission factor (lb pollutant/ lb rubber removed)	Milling	1.13E-04	5.32E-06	3.76E-07	7.78E-08	2.48E-07	-	1.12E-05	-	6.80E-07	9.12E-06	3.71E-07	2.56E-07	2.06E-05
	Calendering	5.59E-05	9.44E-08	2.41E-06	1.57E-07	5.59E-07	3.73E-08	1.30E-07	-	4.71E-08	6.42E-07	3.92E-06	2.86E-07	1.27E-05
	Extruding	1.23E-05	5.08E-07	2.66E-07	3.57E-07	2.49E-06	-	6.45E-08	-	1.32E-05	5.54E-06	9.26E-06	5.22E-07	3.52E-05
PTE (ton/yr)	Milling	24.279	1.144	0.081	0.017	0.053	-	2.410	-	0.146	1.961	0.080	0.055	4.431
	Calendering	3.580	0.006	0.154	0.010	0.036	0.002	0.008	-	0.003	0.041	0.251	0.018	0.815
	Extruding	1.978	0.082	0.043	0.057	0.401	-	0.010	-	2.122	0.892	1.490	0.084	5.671

Notes:
Calculations based on the application for Significant Source Modification (#003-32933-00008) received on March 11, 2013.
Emission factors are from AP-42 Section 4.12.
This table shows the ten highest HAPs and lead from rubber manufacturing, other HAPs available from AP-42 Section 4.12.

Methodology:
PTE (ton/yr) = Maximum material throughput (lb/hr) * Emission factor (lb pollutant/lb rubber) * 8760 hrs/yr * 1 ton/2000 lbs

Marking Ink

Material	Maximum usage rate (gal/lb rubber)	Maximum rubber throughput (lb/hr)	VOC content (lb/gal)	Density (lb/gal)	Weight % DGBE	PTE of VOC (ton/yr)	PTE of DGBE (ton/yr)
M400 Offset Ink	2.80E-06	46,964	6.51	12.99	21%	3.75	1.57
Carco Marking Ink	7.64E-07	46,964	0.33	9.19	-	0.05	-
Matthews #27 Thinner	1.27E-06	46,964	9.10	9.12	-	2.39	-
APV DH Series	2.52E-08	46,964	5.70	7.47	-	0.03	-
Rubber Marking Silver	1.03E-06	46,964	0.00	N/A	-	-	-
DPI 2021 Marking Ink	5.11E-07	46,964	0.00	8.89	-	-	-
Ink Jet Cleaner Liquid	7.58E-07	46,964	6.31	6.31	-	0.98	-
					Total:	**7.20**	**1.57**

Notes:
These calculations are based on additional information provided by the source on August 11, 2013.
Maximum usage rates are based on 2011 and 2012 ink usage and rubber throughput.
DGBE is diethylene glycol mono butyl ether (CAS No. 112-34-5)

Methodology:
PTE of VOC (ton/yr) = Maximum usage rate (gal/lb rubber) * Maximum rubber throughput (lb/hr) * VOC content (lb/gal) * 8760 hrs/yr * 1 ton/2000 lbs
PTE of DGBE (ton/yr) = Maximum usage rate (gal/lb rubber) * Maximum rubber throughput (lb/hr) * Density (lb/gal) * Weight % DGBE * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Tread end cementing (EU-04)

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Maximum throughput (treads/hr)	Worst-case emission factor (lb VOC/tread)	PTE of VOC (lb/hr)	PTE of VOC (ton/yr)
Tread end cementer #1	604	0.033	20.0	87.5
Tread end cementer #2	458	0.033	15.1	66.3
Guilin tread end cementer	550	0.033	18.2	79.7
			Total:	**233.5**

Notes:
These calculations are based on additional information provided by the source on July 30, 2013.
Worst-case emission factor is based on the VOC input to cement the largest tread (15 g/tread)

Methodology:
Worst-case emission factor (lb VOC/yr) = 15 g VOC/tread * 0.0022046 lb/g
PTE of VOC (lb/hr) = Maximum throughput (treads/hr) * Worst-case emission factor (lb VOC/tread)
PTE of VOC (ton/yr) = PTE of VOC (lb/hr) * 8760 hrs/yr * 1 ton/2000 hrs
Control efficiency needed = 1 - (Limited PTE of VOC emissions (ton/yr) / Unlimited PTE of VOC (ton/yr))

Mud Room

Material	Maximum throughput (tires/yr)	Solvent usage (lb VOC/tire)	PTE of VOC (ton/yr)
Balance mud	8,881,694	0.002725	12.10

Notes:
These calculations are based on additional information provided by the source on August 12, 2013.
Solvent usage (lb VOC/tire) is based on the solvent used for the balance mud and tire production in 2011 and 2012

Methodology:
PTE of VOC (ton/yr) = Maximum throughput (tires/yr) * Solvent usage (lb VOC/tire)

Appendix A: Emissions Calculations
Tire Curing (EU-05) - VOC and HAPs

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum material throughput (lb/hr): 143.07 for largest press cavity
Maximum material throughput (lb/hr): 46,964.00 for all presses

			HAPs											
	VOC without silane	VOC with silane*	Aniline	Carbon disulfide	Ethyl benzene	Hexane	Hydroquinone	Isophorone	Lead	Methylene chloride	Methyl-Isobutyl-Ketone	Toluene	Total Xylenes (o-Xylene, m-Xylene + p-Xylene	Total
Emission factor (lb pollutant/ lb rubber)	3.10E-04	4.07E-04	4.36E-06	1.32E-05	1.35E-05	5.97E-06	-	2.06E-08	-	5.62E-06	1.32E-05	1.65E-05	3.36E-05	1.06E-04
PTE (ton/yr) (largest cavity)	0.194	0.255	0.003	0.008	0.008	0.004	-	0.00001	-	0.004	0.008	0.010	0.021	0.066
PTE (ton/yr) (total capacity)	**63.768**	**83.756**	**0.896**	**2.715**	**2.777**	**1.228**	**-**	**0.004**	**-**	**1.156**	**2.715**	**3.394**	**6.912**	**21.804**

Notes:
Calculations based on the application for Significant Source Modification (#003-32933-00008) received on March 11, 2013.
There are 204 dual-cavity presses at the source. Each cavity operates independently therefore there are 408 cavities of various sizes at the source, each of which is considered a separate facility.
The largest maximum material throughput of any one cavity is 143.07 lbs/hr.
The total capacity of all 408 cavities of various size is 46,964 lbs/hr.
Emission factors are worst-case emission factors from AP-42 Section 4.12.
*VOC with silane emission factor is the worst-case AP-42 factor adjusted to accommodate VOC emissions from curing rubber compounds with maximum silane usage, worst-case.
This formulation is claimed as confidential.
VOC emissions from silane are ethanol.
VOC emissions due to the use of silane were previously limited to 40 tons/yr from both EU-02 and EU-05 (SSM No. 003-26320-00008 and SPM No. 003-26647-00008).
This limit is no longer in the permit and silane usage is considered unlimited.
This table shows the ten highest HAPs and lead from rubber manufacturing, other HAPs available from AP-42 Section 4.12.
PTE of each press is less than 25 tons/yr. Therefore these units are not subject to 326 IAC 8-1-6.

Methodology:
PTE (ton/yr) = Maximum material throughput (lb/hr) * Emission factor (lb pollutant/lb rubber) * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
TUO Module (EU-06) White Side Wall (WSW) Grinding - Particulate

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum throughput (tires/yr):	6,661,270	Total for 12 grinders
Emission factor (lb PM/tire):	0.156	

Particle size fractions (% PM)	
PM_{10}	$PM_{2.5}$
20.00%	10.00%

Control Efficiencies		
PM	PM_{10}	$PM_{2.5}$
85%	85%	50%

	Uncontrolled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	118.63	23.73	11.86
lb/day	1.42	0.28	0.14
ton/yr	519.6	103.9	52.0

	Controlled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	17.79	3.56	5.93
lb/day	0.21	0.04	0.07
ton/yr	77.9	15.6	26.0

Notes:
These calculations are based on additional information provided by the source on June 12, 2013.
PM emission factor is the amount of rubber ground off of each tire. This is considered an alternative emission factor
Particle size fractions are conservative estimates based an inlet stack test at a similar facility
Control efficiencies are conservative estimates based on manufacturer's data.
Emissions are for all 12 grinders exhausting to 4 centrifugal separators

Methodology:
Uncontrolled PTE (lb/hr) = Uncontrolled PTE (ton/yr) * 2000 lbs/ton / 8760 hrs/yr
Uncontrolled PTE (lb/day) = Uncontrolled PTE (ton/yr) / 365 days/yr
Uncontrolled PTE (ton/yr) = Maximum throughput (tire/yr) * Emission factor (lb/tire) * Particle size fraction (if applicable)
Controlled PTE = Uncontrolled PTE * (1 - Respective control efficiency)

PSD Minor limits
Limits for each centrifugal separator

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr/baghouse	4.70	2.50	2.50
ton/yr/baghouse	20.59	10.95	10.95

Limited emissions for entire process

	Limited emissions		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	18.80	10.00	10.00
ton/yr	82.34	43.80	43.80

Control efficiency needed		
PM	PM_{10}	$PM_{2.5}$
84.15%	57.85%	15.70%

Note:
Compliance with these limits will render 326 IAC 2-2 (PSD) not applicable.

Methodology:
Limited PTE (ton/yr) (each separator) = Limited emissions (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Limited PTE (entire process) = Limited emissions (each separator) * 4 separators
Control efficiency needed = 1 - (Limited emissions (lb/hr) / (Uncontrolled PTE (lb/hr) + Uncontrolled PTE for WSW protectant spray (lb/hr))

326 IAC 6-3-2 Compliance

Process weight rate (lb/hr)	Allowable emissions (lb/hr)	Controlled PTE of PM (lb/hr)	Control efficiency needed
35,223	28.0	17.79	76.4%

Methodology:
Allowable emission (lb/hr) = 4.10 * (Process weight rate (lb/hr) * 1 ton/2000 lbs)$^{0.67}$, pursuant to 326 IAC 6-3-2(e)
Control efficiency needed = 1 - (Allowable emissions (lb/hr) / Uncontrolled PTE (lb/hr))

Appendix A: Emissions Calculations
TUO Module (EU-06) RIS Grinding - Particulate

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Maximum throughput (tires/yr):	1,332,254	Total for 17 grinders
Emission factor (lb PM/tire):	0.055	

Particle size fractions (% PM)	
PM_{10}	$PM_{2.5}$
20.00%	10.00%

Control Efficiencies		
PM	PM_{10}	$PM_{2.5}$
90%	90%	50%

	Uncontrolled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	8.36	1.67	0.84
lb/day	0.10	0.02	0.01
ton/yr	36.6	7.3	3.7

	Controlled PTE		
	PM	PM_{10}	$PM_{2.5}$
lb/hr	0.84	0.17	0.42
lb/day	0.01	0.00	0.01
ton/yr	3.7	0.7	1.8

Notes:
These calculations are based on additional information provided by the source on June 12, 2013.
PM emission factor is the amount of rubber ground off of each tire. This is considered an alternative emission factor.
Particle size fractions are conservative estimates based an inlet stack test at a similar facility
Control efficiencies are conservative estimates based on manufacturer's data.
Emissions are for all 17 grinders exhausting to 17 centrifugal separators

Methodology:
PM_{10} and $PM_{2.5}$ emission factors = PM emission factor * respective particle size fraction
Uncontrolled PTE (lb/hr) = Uncontrolled PTE (ton/yr) * 2000 lbs/ton / 8760 hrs/yr
Uncontrolled PTE (lb/day) = Uncontrolled PTE (ton/yr) / 365 days/yr
Uncontrolled PTE (ton/yr) = Maximum throughput (tire/yr) * Inlet emission factor (lb/tire)
Controlled PTE = Uncontrolled PTE * (1 - Respective control efficiency)

PSD Minor limits
Limits for each centrifugal separator

	Limited emissions
	PM
lb/hr/separator	0.18
ton/yr/separator	0.79

Limited emissions for entire process

	Limited emissions
	PM
lb/hr	3.1
ton/yr	13.4

Control efficiency needed
PM
63.42%

Note:
Compliance with this limit will render 326 IAC 2-2 (PSD) not applicable.
The unlimited potential PM_{10} and $PM_{2.5}$ emissions from this unit keep the source-wide potential PM_{10} and $PM_{2.5}$ emissions each less than 250 tons/year.
Therefore, there is no limit on $PM_{2.5}$ for this unit required to render 326 IAC 2-2 not applicable.

Methodology:
Limited PTE (ton/yr) (each separator) = Limited emissions (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Limited PTE (entire process) = Limited emissions (each separator) * 17 separators
Control efficiency needed = 1 - (Limited emissions (lb/hr) / Uncontrolled PTE (lb/hr))

326 IAC 6-3-2 Compliance

Process weight rate (lb/hr)	Allowable emissions (lb/hr)	Controlled PTE of PM (lb/hr)	Control efficiency needed
35,223	28.0	0.84	N/A

Note:
The unit can comply with 326 IAC 6-3-2 without the centrifugal separator.

Methodology:
Allowable emission (lb/hr) = 4.10 * (Process weight rate (lb/hr) * 1 ton/2000 lbs)$^{0.67}$, pursuant to 326 IAC 6-3-2(e)
Control efficiency needed = 1 - (Allowable emissions (lb/hr) / Uncontrolled PTE (lb/hr))

Appendix A: Emissions Calculations
TUO Module (EU-06) - VOC and HAPs

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

	Maximum throughput (tires/yr)	Rubber ground off (lb/tire)	Rubber ground off (ton/yr)	
WSW grinding	6,661,270	0.156	519.58	Total for 12 grinders
RIS grinding	1,332,254	0.055	36.64	Total for 17 grinders

		HAPs											
	VOC	Aniline	Carbon disulfide	Ethyl benzene	Hexane	Hydroquinone	Isophorone	Lead	Methylene chloride	Methyl-Isobutyl-Ketone	Toluene	Total Xylenes (o-Xylene, m-Xylene + p-Xylene	Total
Emission factor (lb pollutant/ lb rubber removed)	1.59E-02	4.05E-04	1.90E-05	5.70E-05	1.24E-04	-	-	1.55E-05	2.76E-05	-	1.86E-04	3.18E-05	1.16E-03
WSW grinding - PTE (ton/yr)	8.256	0.210	0.010	0.030	0.064	-	-	0.008	0.014	-	0.097	0.017	0.602
RIS grinding - PTE (ton/yr)	0.582	0.015	0.001	0.002	0.005	-	-	0.001	0.001	-	0.007	0.001	0.042

Notes:
Calculations based on the application for Significant Source Modification (#003-32933-00008) received on March 11, 2013 and additional information provided by the source on June 12, 2013.
Emission factors from AP-42 Section 4.12
This table shows the ten highest HAPs and lead from rubber manufacturing, other HAPs available from AP-42 Section 4.12.

Methodology:
Rubber ground off (ton/yr) = Maximum throughput (tires/yr) * Rubber ground off (lb/tire) * 1 ton/2000 lbs
PTE (ton/yr) = Rubber ground off (ton/yr) * Emission factor (lb pollutant/lb rubber removed)

Appendix A: Emissions Calculations
WSW protectant spray and green tire spray

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission Unit	Usage rate (lb/tire)	Maximum throughput (tire/yr)	Weight % VOC	Weight % solids	Transfer efficiency	PTE of VOC (ton/yr)	Uncontrolled PTE of PM (lb/hr)	Uncontrolled PTE of PM (ton/yr)	PM control efficiency	Controlled PTE of PM
Green tire spray	0.088	8,881,694	1%	35%	90%	3.92	3.13	13.71	75%	3.43

Notes:
Calculations based on the application for Significant Source Modification (#003-32933-00008) received on March 11, 2013 and additional information provided by the source on June 12, 2013.
$PM=PM_{10}=PM_{2.5}$
Particulate matter is controlled by baffle filters
Particulate matter shall be controlled by these baffle filters at all times the green tire spray is in operation in order to comply with 326 IAC 6-3-2 render 326 IAC 2-2 not applicable.

Methodology:
Usage rate (lb/tire) = 40 g/tire * 0.0022046 lb/g
PTE of VOC (ton/yr) = Usage rate (lb/tire) * Maximum throughput (tire/yr) * Weight % VOC * 1 ton/2000 lbs
Uncontrolled PTE of PM (ton/yr) = Usage rate (lb/tire) * Maximum throughput (tire/yr) * Weight % solids * (1-transfer efficiency)
Controlled PTE (ton/yr) = Uncontrolled PTE (ton/yr) * (1-Control efficiency)

Emission Unit	Usage rate (gal/tire)	Maximum throughput (tire/yr)	VOC content (lb/gal coating)	Density (lb/gal)	Weight % solids	PTE of VOC (ton/yr)	Uncontrolled PTE of PM (lb/hr)	Uncontrolled PTE of PM (ton/yr)	PM & PM_{10} control efficiency	Controlled PTE of PM & PM_{10} (ton/yr)	$PM_{2.5}$ control efficiency	Controlled PTE of $PM_{2.5}$ (ton/yr)
WSW protectant	0.0010	6,661,270	0.10	8.76	25%	0.34	1.72	7.55	85%	1.13	50%	3.77

Notes:
Calculations based on additional information provided by the source on June 12, 2013.
Usage rate based on 2011 usage and production data.
$PM=PM_{10}=PM_{2.5}$ for uncontrolled PTE
Particulate matter is controlled by the same 4 centrifugal separators as WSW grinding (EU-06)
Particulate matter shall be controlled by these centrifugal separators at all times the WSW protectant spray is in operation in order to render 326 IAC 2-2 not applicable.

Methodology:
PTE of VOC (ton/yr) = Usage rate (gal/tire) * Maximum throughput (tire/yr) * VOC content (lb/gal coating) * 1 ton/2000 lbs
Uncontrolled PTE of PM (lb/yr) = Uncontrolled PTE of PM (ton/yr) * 2000 lb/ton / 8760 hrs/yr
Uncontrolled PTE of PM (ton/yr) = Usage rate (gal/tire) * Maximum throughput (tire/yr) * Density (lb/gal) * (Weight % solids)
Controlled PTE (ton/yr) = Uncontrolled PTE (ton/yr) * (1-Control efficiency)

Appendix A: Emissions Calculations
Boilers #1, #2, #5 - No. 6 Fuel Oil

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Heat Input Capacity Each (MMBtu/hr/unit)	Total Potential Throughput (kgal/yr)
Boiler #1	52.000	3036.8
Boiler #2	52.000	3036.8
Boiler #5	130.000	7592.0
Totals:	**234.000**	**13665.6**

Boiler #3 burns only natural gas. Potential emissions for Boiler #3 alone calculated on Page 5 of 13 of this Appendix.

S = 1.5 = Weight % Sulfur *100

	Pollutant						
	PM*	PM_{10}*	Direct $PM_{2.5}$*	SO_2	NO_x	VOC	CO
Emission Factor (lb/kgal) (Boiler #1, #2)[1]	17.0	12.1	5.4	235.5	55.0	1.13	5.0
Emission Factor (lb/kgal) (Boiler #5)[2]	17.0	16.2	11.1	235.5	47.0	0.28	5.0
Potential Emission (tons/yr)	116.2	98.2	58.5	1609.1	345.4	4.5	34.2
Total Potential Emission (tons/yr)[3]	116.6	99.9	60.2	1609.3	367.8	5.7	52.9

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Condensable PM emission factor is 1.5 lb/kgal. (AP-42 Table 1.3-2)

	HAPs - Organics				
	Benzene	Formaldehyde	Naphthalene	Toluene	Xylene
Emission Factor (lb/kgal)	2.1E-04	3.3E-02	1.1E-03	6.2E-03	1.1E-04
Potential Emission (tons/yr)	1.46E-03	2.25E-01	7.72E-03	4.24E-02	7.45E-04
Total Potential Emission (tons/yr)[3]	1.93E-03	2.42E-01	7.72E-03	4.31E-02	7.45E-04

	HAPs - Metals				
	Antimony	Cobalt	Lead	Manganese	Nickel
Emission Factor in lb/kgal	5.3E-03	6.0E-03	1.5E-03	3.0E-03	8.5E-02
Potential Emission in tons/yr	3.59E-02	4.11E-02	1.03E-02	2.05E-02	5.77E-01
Total Potential Emission (tons/yr)[3]	3.59E-02	4.11E-02	1.04E-02	2.06E-02	5.78E-01
				Total HAPs:	**6.859E-01**

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (kg/MMBtu)	75.1	0.003	0.0006
Potential Emission (tons/yr)	169,693	395.9	79.2
Summed Potential Emissions (tons/yr)	170,168		
Potential CO_2e Emissions (tons/yr)	202,550		
Total Potential CO_2e Emissions (tons/yr)[3]	229,509		

Notes:
MMBtu = 1,000,000 Btu
1 gallon of No. 6 fuel oil has a heating value of 150,000 Btu
[1] Emission factors for boilers <100 MMBtu/hr (AP-42 Tables 1.3-1, 1.3-2,1.3-3, and 1.3-7 (SCC 1-03-004-02/03,1-02-004-02/03, and 1-03-004-04))
[2] Emission factors for boilers >100 MMBtu/hr (AP-42 Tables 1.3-1, 1.3-2, 1.3-3 and 1.3-5 (SCC 1-01-004-01/02/03 and 1-01-004-05 and 1-02-004-04))
[3] Total Potential Emissions includes emissions from Boiler #3, which only burns natural gas
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.3.
Greenhouse Gas Emission Factors are from Tables C-1 and 2 of 40 CFR Part 98 Subpart C.
Global Warming Potentials (GWP) are from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1kgal/1000 gal * 1 gal/0.139 MMBtu
Particulate emissions factors (lb/kgal) calculated according to the following table:

	PM	PM_{10}	Direct $PM_{2.5}$	
Boilers #1, #2	9.19*S+3.22	5.17*A+1.5	1.92*A+1.5	(AP-42 Tables 1.3-1, 1.3-2, and 1.3-7)
Boiler #5	9.19*S+3.22	7.17*A+1.5	4.67*A+1.5	(AP-42 Tables 1.3-1, 1.3-2, and 1.3-5)

A= 1.12*S+0.37

SO_2 emission factor (lb/kgal) = 157 * S
Potential Emission (tons/yr) = Throughput (kgals/year) * Emission Factor (lb/kgal) * 1 ton/2000 lbs
GHG Emission (tons/yr) = Heat Input Capacity MMBtu/hr * Emission Factor (kg/MMBtu) * 2.20462 lb/kg * 8760 hrs/yr * 1 ton/2000 lbs
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emissions Calculations
Boiler #3 - Natural Gas

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)
Boiler #3	52.000	446.6

	Pollutant						
	PM*	PM_{10}*	Direct $PM_{2.5}$*	SO_2	NO_x	VOC	CO
Emission Factor (lb/MMCF)	1.9	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission (tons/yr)	0.4	1.7	1.70	0.1	22.3	1.2	18.8

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission (tons/yr)	4.689E-04	2.680E-04	1.675E-02	4.019E-01	7.592E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor (lb/MMCF)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission (tons/yr)	1.116E-04	2.456E-04	3.126E-04	8.485E-05	4.689E-04
				Total HAPs:	**4.214E-01**

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (lb/MMCF)	120,000	2.3	2.2
Potential Emission (tons/yr)	26,795	0.5	0.5
Summed Potential Emissions (tons/yr)	26,796		
Potential CO_2e Emissions (tons/yr)	26,958		

Notes:
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3 (SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03)
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:
Potential Throughput (MMCF/yr) = Heat Input Capacity Each (MMBtu/hr) * 8,760 hrs/yr * High Heat Value (1 MMCF/1,020 MMBtu)
Potential Emission (tons/yr) = Total Max Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emissions Calculations
Boilers #1, #2, #3, #5 - Natural Gas

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Heat Input Capacity Each (MMBtu/hr/unit)	Total Potential Throughput (MMCF/yr)
Boiler #1	52.0	446.6
Boiler #2	52.0	446.6
Boiler #3	52.0	446.6
Boiler #5	130.0	1116.5
Totals:	**286.0**	**2456.2**

	Pollutant						
	PM*	PM_{10}*	Direct $PM_{2.5}$*	SO_2	No_x	VOC	CO
Emission Factor (lb/kgal) (Boiler #1-3)[1]	1.9	7.6	7.6	0.6	100.0	5.5	84.0
Emission Factor (lb/kgal) (Boiler #5)[2]	1.9	7.6	7.6	0.6	280.0	5.5	84.0
Potential Emission (tons/yr)	2.3	9.3	9.3	0.7	223.3	6.8	103.2

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission (tons/yr)	2.579E-03	1.474E-03	9.211E-02	2.211E+00	4.176E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor (lb/MMCF)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission (tons/yr)	6.141E-04	1.351E-03	1.719E-03	4.667E-04	2.579E-03
				Total HAPs:	**2.318E+00**

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (lb/MMCF)	120,000	2.3	2.2
Potential Emission (tons/yr)	147,374	2.8	2.7
Summed Potential Emissions (tons/yr)	147,380		
CO_2e Total (tons/yr)	148,271		

Notes:
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
[1] Emission factors for boilers <100 MMBtu/hr
[2] Emission factors for boilers >100 MMBtu/hr
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:
Potential Throughput (MMCF/yr) = Heat Input Capacity Each (MMBtu/hr) * 8,760 hrs/yr * High Heat Value (1 MMCF/1,020 MMBtu)
Potential Emission (tons/yr) = Total Max Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emissions Calculations
Hot Water Heating System - Natural Gas

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Heat Input Capacity (MMBtu/hr)	Total Potential Throughput (MMCF/yr)
Hot Water Heater	0.180	1.5

	Pollutant						
	PM*	PM_{10}*	Direct $PM_{2.5}$*	SO_2	NO_x	VOC	CO
Emission Factor (lb/MMCF)	1.9	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission (tons/yr)	0.001	0.006	0.01	0.0005	0.1	0.0	0.1

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission (tons/yr)	1.623E-06	9.275E-07	5.797E-05	1.391E-03	2.628E-06

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor (lb/MMCF)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission (tons/yr)	3.865E-07	8.502E-07	1.082E-06	2.937E-07	1.623E-06
				Total HAPs:	**1.459E-03**

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (lb/MMCF)	120,000	2.3	2.2
Potential Emission (tons/yr)	93	0.0	0.0
Summed Potential Emissions (tons/yr)	93		
Potential CO_2e Emissions (tons/yr)	93		

Notes:
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3 (SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03) (AP-42 Supplement E 9/98)
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:
Potential Throughput (MMCF/yr) = Heat Input Capacity Each (MMBtu/hr) * 8,760 hrs/yr * High Heat Value (1 MMCF/1,020 MMBtu)
Potential Emission (tons/yr) = Total Max Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emissions Calculations
Fire System Boiler - No. 2 Fuel Oil

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission unit	Heat Input Capacity (MMBtu/hr)	Total Potential Throughput (kgal/yr)
Fire System Water Tank Heating Boiler	1.540	96.4
Totals:		

S = 0.5 = Weight % Sulfur *100

	Pollutant						
	PM*	PM_{10}*	Direct $PM_{2.5}$*	SO_2	NO_x	VOC	CO
Emission Factor (lb/kgal)	2.0	2.4	2.1	71	20.0	0.56	5.0
Potential Emission (tons/yr)	0.10	0.11	0.10	3.4	1.0	0.027	0.2

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Condensable PM emission factor is 1.3 lb/kgal. (AP-42 Table 1.3-2)

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor (lb/kgal)	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission (tons/yr)	1.93E-07	1.45E-07	1.45E-07	1.45E-07	4.34E-07

	HAPs - Metals (cont.)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/kgal	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.45E-07	2.89E-07	1.45E-07	7.23E-07
			Total HAPs:	**2.361E-06**

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (lb/kgal)	22300	0.216	0.26
Potential Emission (tons/yr)	1.07E+03	1.04E-02	1.25E-02
Summed Potential Emissions (tons/yr)	1,074		
Potential CO_2e Emissions (tons/yr)	1,079		

Notes:
MMBtu = 1,000,000 Btu
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Emission Factors are from AP-42 Tables 1.3-1, 1.3-2, 1.3-3, and 1.3-7 (SCC 1-03-005-01/02/03) (AP-42 Supplement E 9/98)
No data was available in AP-42 for organic HAPs.
Greenhouse Gas Emission Factors are from AP-42, Tables 1.3-3, 1.3-8, and 1.3-12 (SCC 1-03-005-01/02/03) Supplement E 9/99 (see errata file)
Global Warming Potentials (GWP) are from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) * 8760 hrs/yr * 1kgal/1000 gallon * 1 gal/0.140 MMBtu
SO_2 emission factor (lb/kgal) = 157 * S
Potential Emission (tons/yr) = Throughput (kgals/year) * Emission Factor (lb/kgal) * 1 ton/2000 lbs
GHG Emission (tons/yr) = Heat Input Capacity MMBtu/hr * Emission Factor (kg/MMBtu) * 2.20462 lb/kg * 8760 hrs/yr * 1 ton/2000 lbs
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emission Calculations
Fire Pumps & Emergency Generator - Reciprocating Internal Combustion Engines (No. 2 Fuel Oil)

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Unit	Output Horsepower Rating (hp)
Two (2) diesel fire pumps (275 hp each)	550
Wastewater treatment emergency generator	147
Total:	**697.0**

Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	348,500

	Pollutant						
	PM*	PM_{10}*	direct $PM_{2.5}$*	SO2	NOx	VOC	CO
Emission Factor (lb/hp-hr)	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission (tons/yr)	0.38	0.38	0.38	0.36	5.40	0.44	1.16

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	HAPs							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs**
Emission Factor (lb/hp-hr)***	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission (tons/yr)	1.14E-03	4.99E-04	3.48E-04	4.77E-05	1.44E-03	9.36E-04	1.13E-04	2.05E-04
							Total HAPs (tons/yr):	**4.72E-03**

**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
***Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Green House Gas Emissions (GHGs)

	Greenhouse Gas		
	CO_2	CH_4	N_2O
Emission Factor (lb/hp-hr)	1.15E+00	4.63E-05	9.26E-06
Potential Emission (tons/yr)	2.00E+02	8.07E-03	1.61E-03
Summed Potential Emissions (tons/yr)	200		
CO_2e Total (tons/yr)	201		

Notes:
These internal combustion engines are for emergency use only and do not operate more than 500 hours per year.
Emission Factors are from AP 42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH_4 and N_2O 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.

Calculations:
Potential Throughput (hp-hr/yr) = Total Output Horsepower Rating (hp) * Maximum Hours Operated per Year
Potential Emission (tons/yr) = Potential Throughput (hp-hr/yr) * Emission Factor (lb/hp-hr) / 2,000 lb/ton
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr * CO_2 GWP (1) + CH_4 Potential Emission ton/yr * CH_4 GWP (21) + N_2O Potential Emission ton/yr * N_2O GWP (310).

Appendix A: Emission Calculations
Abrasive blasting

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Emission Factors for Abrasives

Abrasive	lb PM/lb abrasive	lb PM_{10}/lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Uncontrolled PTE

					Emission factors		Uncontrolled PTE - PM		Uncontrolled PTE - PM_{10}	
Emission Unit	Abrasive type	Number of nozzles	Fraction of time of wet blasting	Flow rate (lb/hr)	PM (lb/lb)	PM_{10} (lb/lb PM)	lb/hr	ton/yr	lb/hr	ton/yr
Guyson blaster	Steel shot	1	0%	1.0	0.004	0.86	0.004	0.018	0.003	0.015
Econoline blaster	Grit	1	0%	100.364	0.010	0.70	1.0	4.4	0.7	3.1
Pangborn blaster	Grit	4	0%	100.364	0.010	0.70	4.0	17.6	2.8	12.3
						Total uncontrolled PTE:	**5.0**	**22.0**	**3.5**	**15.4**

Controlled PTE

		Controlled PTE - PM		Controlled PTE - PM_{10}	
Emission Unit	Control Efficiency	lb/hr	ton/yr	lb/hr	ton/yr
Guyson blaster	98%	0.0001	0.0004	0.0001	0.0003
Econoline blaster	98%	0.02	0.09	0.01	0.06
Pangborn blaster	98%	0.08	0.35	0.06	0.25

Notes:
Emission factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
PM_{10}=$PM_{2.5}$

Methodology:
Uncontrolled PTE of PM (lb/hr) = Flow rate (lb/hr) * PM emission factor (lb/lb steel shot) * (1-Fraction of time of wet blasting/2) * Number of nozzles
Uncontrolled PTE of PM_{10} (lb/hr) = Uncontrolled PTE of PM (lb/hr) * PM_{10} emission factor (lb/lb PM)
Uncontrolled PTE (lb/day) = Uncontrolled PTE (lb/hr) * 24 hrs/day
Uncontrolled PTE (ton/yr) = Uncontrolled PTE (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Controlled PTE = Uncontrolled PTE * (1 - Control efficiency)

326 IAC 6-3-2 Limit

Emission Unit	Material throughput (lb/hr)	Abrasive throughput (lb/hr)	Process weight rate (ton/hr)	Allowable emissions (lb/hr)	Control efficiency needed
Econoline blaster	500	100.4	0.30	1.83	N/A
Pangborn blaster	500	401.5	0.45	2.40	40.1%

326 IAC 2-2 (PSD) Limit

Limited PTE of PM (lb/hr)	Limited PTE of PM (ton/yr)	Control efficiency needed
0.4	1.75	60.1%
1.5	6.57	62.6%

Limited PTE of all blasters

Limited PTE of PM (ton/yr)	Limited PTE of PM_{10} & $PM_{2.5}$ (ton/yr)
8.340	8.337

Notes:
The Guyson blaster is not subject to 326 IAC 6-3-2 because the uncontrolled PTE of PM is less than 0.551 lbs/hr
For PSD limits, PM = PM_{10} = $PM_{2.5}$

Methodology:
Abrasive throughput (lb/hr) = Flow rate (lb/hr) * Number of nozzles
Process weight rate (ton/hr) = (Material throughput (lb/hr) + Steel shot throughput (lb/hr)) / 2000 lb/ton
Allowable emission (lb/hr) = 4.10 * Process weight rate $(ton/hr)^{0.67}$, pursuant to 326 IAC 6-3-2(e)
Control efficiency needed = 1 - (Limited emissions (lb/hr) / Unlimited PTE (lb/hr))
Limited PTE (ton/yr) = Limited PTE (lb/hr) * 8760 hrs/yr * 1 ton/2000 lbs
Limited PTE of all blasters = Unlimited PTE of Guyson blaster + Limited PTE of Econoline + Limited PTE of Pangborn

Appendix A: Emissions Calculations
VOC storage tanks

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Tank ID	Product Stored	Capacity (gal)	Turnovers (#/yr)	Throughput (gal/yr)	Working losses (lb/yr)	Breathing losses (lb/yr)	PTE of VOC (ton/yr)
403-1	Heptane	250	52	13,000	14.49	9.79	0.012
403-2	Heptane	250	52	13,000	14.49	9.79	0.012
403-3	Heptane	250	52	13,000	14.49	9.79	0.012
403-4	Heptane	250	52	13,000	14.49	9.79	0.012
405	No. 2 Fuel Oil	120	12	1,440	0.03	0.1	0.0001
413-T1	Heptane	15,284.35	6	91,706	103.43	64.35	0.084
413-T9	No. 6 Fuel Oil	1,930,956.86	8	15,447,655	2.37	0.8	0.002
413-T10	No. 2 Fuel Oil	560	12	6,720	0.14	0.4	0.0003
413-T11	Gasoline (RVP 9)	300	8	2,400	17.97	109.44	0.064
413-T12	Gasoline (RVP 9)	560	8	4,480	33.55	303.52	0.169
413-T13	No. 2 Fuel Oil	288	12	3,456	0.07	0.11	0.00009
413-T14	No. 2 Fuel Oil	288	12	3,456	0.07	0.11	0.00009
413-T15	No. 2 Fuel Oil	1,000	12	12,000	0.25	0.44	0.00035
						Total:	**0.367**

Note:
Tank emissions were calculated using Tanks 4.0 as provided by the source on May 5, 2013

Methodology:
Throughput (gal/yr) = Capacity (gal) * Turnovers (#/year)
PTE of VOC (ton/yr) = (Working losses (lb/yr) + Breathing losses (lb/yr)) * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Other insignificant units

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

This information was provided by the source on May 5, 2013

Gasoline dispensing

Gasoline dispensed (gal/yr)	Emission factor (lb/kgal)	PTE of VOC (ton/yr)
7000	11.0	0.0385

Note:
Emission factor is from AP-42 Chapter 5.2 Table 5.2-7 for uncontrolled displacement loss from vehicle refueling

Methodology:
PTE of VOC (ton/yr) = Gasoline dispensed (gal/yr) * 1 gal/kgal * Emission factor (lb/kgal) * 1 ton/2000 lbs

Degreasing

Density (lb/gal)	Weight % VOC	Usage rate (gal/month)	PTE of VOC (ton/yr)
8.62	7.7%	145	0.58

Methodology:
PTE of VOC (ton/yr) = Density (lb/gal) * Weight % VOC * Usage rate (gal/month) * 12 months/yr * 1 ton/2000 lbs

Welding and fabrication

Electrode usage (lb/yr)	1000

Pollutant	PM	Cr	Mn	Ni	Total HAPs
Emission factors (lb/lb electrode)	0.0816	0.0014	0.02	1.7E-03	
PTE (ton/yr)	0.0408	0.0007	0.0116	0.00086	0.013

Note:
Emission factor is from AP-42 Chapter 12.19 Table 12.19-1
Welding process and electrode type were not specified so worst-case from AP-42 Table 12.19-1 was used (SMAW with 14-Mn-4Cr)
PM = PM_{10} = $PM_{2.5}$

Methodology:
PTE (ton/yr) = Electrode usage (lb/yr) * Emission factor (lb/lb electrode) * 1 ton/2000 lb

Appendix A: Emissions Calculations
Unpaved Roads

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type of trip	Maximum number of vehicles	Number of one-way trips per day per vehicle	Max one-way trips per day (trip/day)	Max weight loaded (tons/trip)	Total weight driven per day (ton/day)	Max one-way distance (feet/trip)	Max one-way distance (mi/trip)	Max one-way miles (mi/day)	Max one-way miles (mi/yr)
Type of vehicle (enter plant) (one-way trip)	2.00	3.00	6.00	3.00	18.00	3336.00	0.63	3.79	1383.7
Type of vehicle (leaving plant) (one-way trip)	2.00	3.00	6.00	3.00	18.00	3336.00	0.63	3.79	1383.7
		Totals:	**12.0**		**36.0**			**7.58**	**2767.4**

Average vehicle weight per trip (tons/trip) = 3.0
Average miles per trip (miles/trip) = 0.63

Unmitigated emission factor (lb/mi), $E = k * (s/12)^a * (W/3)^b$ (Equation 1a from AP-42, Chapter 13.2.2)

	PM	PM_{10}	$PM_{2.5}$	
Where: k =	4.9	1.5	0.15	= particle size multiplier (lb/vehicle mile) (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	2.7	2.7	2.7	= mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Industrial Road interpolated)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	3.0	3.0	3.0	= average vehicle weight (tons)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Mitigated emission factor takes natural mitigation due to precipitation into consideration
Mitigated emission factor (lb/mi), $E_{ext} = E * [(365 - P)/365]$ (Equation 2 from AP-42 Chapter 13.2.2)
Where: P = 125 = days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM_{10}	$PM_{2.5}$	
Unmitigated emission factor (lb/mi), E =	1.72	0.39	0.04	
Mitigated emission factor (lb/mi), E_{ext} =	1.13	0.26	0.03	
Dust control efficiency =	50%	50%	50%	(Pursuant to control measures outlined in fugitive dust control plan)

Type of trip	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM_{10} (tons/yr)	Unmitigated PTE of $PM_{2.5}$ (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM_{10} (tons/yr)	Mitigated PTE of $PM_{2.5}$ (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM_{10} (tons/yr)	Controlled PTE of $PM_{2.5}$ (tons/yr)
Type of vehicle (enter plant) (one-way trip)	1.19	0.27	0.03	0.78	0.18	0.02	0.39	0.09	0.01
Type of vehicle (leaving plant) (one-way trip)	1.19	0.27	0.03	0.78	0.18	0.02	0.39	0.09	0.01
Totals:	**2.39**	**0.54**	**0.05**	**1.57**	**0.36**	**0.04**	**0.78**	**0.18**	**0.02**

Methodology:
Max one-way trips per day (trip/day) = Max number of vehicles * Number of one-way trips per day per vehicle
Total weight driven per day (ton/day) = Max weight loaded (tons/trip) * Max one-way trips per day (trip/day)
Max one-way distance (mi/trip) = Max one-way distance (feet/trip) * 1 mi/5280 ft
Max one-way miles (mi/day) = Max one-way trips per day (trip/day) * Max one-way distance (mi/trip)
Max one-way miles (mi/yr) = Max one-way miles (mi/day) * 365 days/yr
Average vehicle weight per trip (ton/trip) = ∑ Total weight driven per day (ton/day) / ∑ Max trips per day (trip/day)
Average miles per trip (mi/trip) = ∑ Max one-way miles (miles/day) / ∑ Max trips per year (trip/day)
Unmitigated PTE (tons/yr) = Max one-way miles (miles/yr) * Unmitigated emission factor (lb/mile) * 1 ton/2000 lbs
Mitigated PTE (tons/yr) = Max one-way miles (miles/yr) * Mitigated emission factor (lb/mile) * 1 ton/2000 lbs
Controlled PTE (tons/yr) = Mitigated PTE (tons/yr) * (1 - Dust control efficiency)

Appendix A: Emissions Calculations
Paved Roads

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type of trip	Max number of vehicles per day	Number of one-way trips per day per vehicle	Max one-way trips per day (trip/day)	Max weight loaded (tons/trip)	Total weight driven per day (ton/day)	Max one-way distance (feet/trip)	Max one-way distance (mi/trip)	Max one-way miles (mi/day)	Max one-way miles (mi/yr)
Type of vehicle (entering plant) (one-way trip)	1200	1	1200	40.0	48000.0	5808	1.100	1320.0	481800.0
Type of vehicle (leaving plant) (one-way trip)	1200	1	1200	40.0	48000.0	5808	1.100	1320.0	481800.0
		Totals:	**2400**		**96000.0**			**2640.0**	**963600.0**

Average vehicle weight per trip (tons/trip) = 40.0
Average miles per trip (miles/trip) = 1.10

Unmitigated emission factor (lb/mi), $E = k * (sL)^{0.91} * (W)^{1.02}$ (Equation 1 from AP-42 Chapter 13.2.1)

	PM	PM_{10}	$PM_{2.5}$	
Where: k =	0.011	0.0022	0.00054	= particle size multiplier (lb/vehicle miles) (AP-42 Table 13.2.1-1)
W =	40.0	40.0	40.0	= average vehicle weight (tons)
sL =	0.015	0.015	0.015	= silt loading value (g/m^2) - Ubiquitous Baseline for limited access roads (AP-42 Table 13.2.1-3)

Mitigated emission factor takes natural mitigation due to precipitation into consideration
Mitigated emission factor (lb/mi), $E_{ext} = E * [1 - (p / 4*N)]$ (Equation 2 from AP-42 Chapter 13.2.1)
where p = 125 = days of rain greater than or equal to 0.01 inches (see AP-42 Figure 13.2.1-2)
N = 365 = days per year

	PM	PM_{10}	$PM_{2.5}$	
Unmitigated emission factor (lb/mi), E =	0.010	0.002	0.0005	
Mitigated emission factor (lb/mi), E_{ext} =	0.009	0.002	0.0005	
Dust control efficiency =	50%	50%	50%	(Pursuant to control measures outlined in fugitive dust control plan)

Type of trip	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM_{10} (tons/yr)	Unmitigated PTE of $PM_{2.5}$ (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM_{10} (tons/yr)	Mitigated PTE of $PM_{2.5}$ (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM_{10} (tons/yr)	Controlled PTE of $PM_{2.5}$ (tons/yr)
Type of vehicle (entering plant) (one-way trip)	2.50	0.50	0.12	2.28	0.46	0.11	1.14	0.23	0.06
Type of vehicle (leaving plant) (one-way trip)	2.50	0.50	0.12	2.28	0.46	0.11	1.14	0.23	0.06
Totals:	**5.00**	**1.00**	**0.25**	**4.57**	**0.91**	**0.22**	**2.28**	**0.46**	**0.11**

Methodology:
Max one-way trips per day (trip/day) = Max number of vehicles * Number of one-way trips per day per vehicle
Total weight driven per day (ton/day) = Max weight loaded (tons/trip) * Max one-way trips per day (trip/day)
Max one-way distance (mi/trip) = Max one-way distance (feet/trip) * 1 mi/5280 ft
Max one-way miles (mi/day) = Max one-way trips per day (trip/day) * Max one-way distance (mi/trip)
Max one-way miles (mi/yr) = Max one-way miles (mi/day) * 365 days/yr
Average vehicle weight per trip (ton/trip) = ∑ Total weight driven per day (ton/day) / ∑ Max trips per day (trip/day)
Average miles per trip (mi/trip) = ∑ Max one-way miles (miles/day) / ∑ Max trips per year (trip/day)
Unmitigated PTE (tons/yr) = Max one-way miles (miles/yr) * Unmitigated emission factor (lb/mile) * 1 ton/2000 lbs
Mitigated PTE (tons/yr) = Max one-way miles (miles/yr) * Mitigated emission factor (lb/mile) * 1 ton/2000 lbs
Controlled PTE (tons/yr) = Mitigated PTE (tons/yr) * (1 - Dust control efficiency)

Indiana Department of Environmental Management
Office of Air Quality

Appendix B
Best Available Control Technology (BACT) Determination

Source Description and Location

Source Name:	**BF Goodrich Tire Manufacturing**
Source Location:	**18906 Highway 24 East, Woodburn, IN 46797**
County:	**Allen**
SIC Code:	**3011 (Tires and Inner Tubes)**
Significant Source Modification No.:	**003-33726-00008**
Permit Renewal No.:	**T003-32577-00008**
Permit Reviewer:	**Ryan Graunke**

Introduction

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for three (3) existing tread end cementers at a stationary rubber tire manufacturing plant.

Description of Process

The following process is subject to 326 IAC 8-1-6:

(a) Tread end cementing process, identified as EU-04, and consisting of the following:

(1) Tread end cementer #1, originally constructed in 1961, replaced in 1990 and in 1997, with a maximum capacity of 604 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(2) Tread end cementer #2, originally constructed in 1961, replaced in 1991, with a maximum capacity of 458 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control;

(3) Guilin tread end cementer, constructed in 2011, with a maximum capacity of 550 treads per hour, exhausting to the four (4) process boilers (Boilers #1, #2, #3, and #5) for VOC control.

Permitting History

(1) When the construction permit (CP 003-5711) was issued on February 10, 1997 for the tread end cementer #1, the potential to emit of VOC was calculated at 24.64 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

(2) When the construction permit (CP 003-2138) was issued on September 13, 1991 for the tread end cementer #2, the potential to emit of VOC was calculated at 10.2 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

(3) When the minor source modification (003-29925-00008) was issued on December 22, 2010 for the Guilin tread end cementer, the potential to emit of VOC was calculated at 5.92 tons per year, therefore this unit was previously determined not to be subject to 326 IAC 8-1-6.

However, based on additional information and calculations provided by the source on July 30, 2013, the unlimited potential to emit VOC before control of each of the three (3) tread end cementers is now calculated at greater than twenty-five (25) tons of VOC per year. Therefore, they are now subject to 326 IAC 8-1-6.

Below is the summary table of the revised potential emissions of the tread cementers. See Appendix A for details.

Emission unit	Maximum throughput (treads/hr)	Worst-case emission factor (lb VOC/tread)	PTE of VOC (lb/hr)	PTE of VOC (ton/yr)
Tread end cementer #1	604	0.033	20.0	87.5
Tread end cementer #2	458	0.033	15.1	66.3
Guilin tread end cementer	550	0.033	18.2	79.7
			Total:	**233.5**

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for all facilities constructed after January 1, 1980 that have potential Volatile Organic Compound (VOC) emissions of equal to or greater than twenty-five (25) tons per year and are not regulated by other rules in 326 IAC 8. Based on the calculations (see TSD Appendix A) and the analysis of applicable state regulations (see State Rule Applicability section of TSD), the three (3) tread end cementers (#1, #2, and Guilin) are subject to the requirements of 326 IAC 8-1-6, since these emission units, were constructed in 1997, 1991, and 2010, respectively, each have a potential to emit great than twenty-five (25) tons per year, and are not regulated by other rules in 326 IAC 8. Therefore, the Permittee is required to control VOC emissions from the tread end cementers pursuant to the provisions of 326 IAC 8-1-6 (BACT).

Summary of the Best Available Control Technology (BACT) Process

BACT is a mass emission limitation based on the maximum degree of pollution reduction of emissions, which is achievable on a case-by-case basis. BACT analysis takes into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, work practices, and operational limitations.

Federal guidance on BACT requires an evaluation that follows a “top down” process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by regulation or controls achieved in practice. The highest level of control is then evaluated for technical and economic feasibility.

The five (5) basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies and controls applied to similar source categories.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further

consideration be documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls. Innovative control means a control that has not been demonstrated in a commercial application on similar units. Only available and proven control technologies are evaluated. A control technology is considered available when there are sufficient data indicating that the technology results in confirmed reductions in emissions of regulated pollutants.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. The ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that the evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation.

Step 4: Evaluate the Most Effective Controls and Document the Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The final BACT determination would be the technology with the most stringent corresponding limit that is economically feasible. BACT must be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

The Office of Air Quality (OAQ) makes BACT determinations by following the five steps identified above.

A summary of the BACT review for the surface coating line is provided below. This BACT determination is based on the following information:

(1) BACT analysis information submitted by BF Goodrich Tire Manufacturing on October 1, 2013;
(2) The EPA RACT/BACT/LAER (RBLC) Clearinghouse; and
(3) State and local air quality permits.

VOC BACT Analysis

Step 1 − Identify All Potentially Available Control Options

Based on the information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from the tread end cementers:

(1) Eliminate/reduce solvent usage:
Eliminating the heptane solvent or using non-VOC solvents would eliminate VOC emissions from this process. Reducing the amount of heptane used in the process would reduce VOC emissions without the requirement of VOC control.

(2) Carbon Adsorption:
Carbon adsorption is a process, by which VOC is retained on a granular carbon surface, which is highly porous and has a very large surface-to-volume ratio. Adsorption is rapid and removes most of the VOC in the stream. Eventually, the adsorbent becomes saturated with the vapors and the system's efficiency drops. The adsorbent must be regenerated or replaced soon after efficiency begins to decline. In regenerative systems, the adsorbent is reactivated with steam or hot air and the absorbate (solvent) is recovered for reuse or disposal. Non-regenerative systems require the removal of the adsorbent and replacement with fresh or previously regenerated carbon.

(3) Catalytic Incinerator:
In a catalytic incinerator, a catalyst is used to lower the activation energy for oxidation. When a preheated gas stream is passed through a catalytic oxidizer, the catalyst bed initiates and promotes the oxidation of VOCs without being permanently altered itself. In catalytic incineration, combustion occurs at significantly lower temperatures than that of direct flame units and can achieve a destruction efficiency of 95%. However, steps must be taken to ensure complete combustion. Common types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese, and nickel. These catalysts are typically deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic. Catalytic incineration are not suited to systems with high exhaust volumes, variable types and concentrations of VOC, and where catalyst poisons or fouling contaminants are present.

(4) Regenerative or Recuperative Thermal Oxidizer:
Thermal oxidation is the process of oxidizing organic contaminants in a waste gas stream by raising the temperature above the auto ignition point in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The residence time, temperature, flow velocity and mixing, and the oxygen concentration in the combustion chamber affect the oxidation rate and destruction efficiency. Thermal oxidizers typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. Thermal oxidizers are typically designed to have a residence time of one second or less and combustion chamber temperatures between 1,200 and 2,000°F.

A regenerative thermal oxidizer uses a high-density media such as a packed ceramic bed, which was heated in a previous cycle, to preheat the incoming waste gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. Process gases pass through the RTO inlet isolation damper before entering the inlet of the RTO. Upon entering the RTO, the gases pass up through a heat recovery section (pre-heating mode), enter the combustion chamber where the VOCs are destroyed and then pass through another heat recovery section (heat recovery mode), and exit the system via the exhaust duct.

A recuperative thermal oxidizer has a primary and/or secondary heat exchanger within the system. The difference between a recuperative oxidizer and a regenerative oxidizer is simply where the reclaimed heat is used. Essentially, the regenerative oxidizer puts the heat back into the process of destroying the VOCs, whereas a recuperative oxidizer routes the heat to another process instead (like cogeneration) through a heat exchanger.

(5) Incineration in Boilers:
Boilers are used as afterburners to incinerate air contaminants. The primary function of a boiler is to supply steam or hot water. Like any other types of controls, boilers require a properly design exhaust system to convey air pollutants effectively from the point of origin to the boiler firebox. Contaminated gases may be introduced into the boiler firebox in two ways:

(1) Through the burner, serving as combustion air, or
(2) Downstream of the burner, serving as secondary air.

(6) Trickling bed filters/Biofiltration:
Trickling bed filtration or biofiltration is a process in which a waste gas stream is passed through a bed of peat, compost, bark, soil, gravel, or other inorganic media in order to strip organic contaminant gases from the waste gas stream through the process of dissolution in the bed moisture and adsorption to the bed media. Under aerobic conditions, microorganisms naturally present in the bed oxidize the organic contaminant gases within the bed to carbon dioxide, water, and additional biomass through metabolic processes. If the temperature of the waste gas stream is too high, the gas stream must be cooled to an optimum temperature before it can be treated in the biofilter in order to maintain the viability of the microorganisms. In addition, the bed must be monitored and maintained at an optimum moisture content and pH in order to prevent cracking of the bed media and to maintain the viability of the microorganisms

(7) Flare
Flares can be used to control almost any VOC stream and can handle fluctuations in VOC concentration, flow rate, heat content, and inert content. Flaring is appropriate for continuous, batch, and variable flow vent stream application. Some streams, such as those containing halogenated or sulfur-containing compounds, are usually not flared because they corrode the flare tip or cause formation of secondary pollutants (such as acid gases or sulfur dioxide). A flare normally provides VOC destruction efficiency greater than 98%.

(8) Absorber/scrubber
Absorption is a unit operation where components of a gas phase mixture (Pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or nonvolatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and solubility of the pollutant in the solvent. Absorption is commonly used to recover products or purify gas streams that have high concentrations of organic compounds. Absorption processes are typically used to recover products or purify gas streams with high concentrations of organic compounds such as in the ethanol production and soybean oil refinery industries.

(9) Condensation
Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream, and typically require a refrigeration unit to obtain the temperature necessary to condense the VOCs from the emission stream. These systems are frequently used prior to other control devices (e.g., oxidizers or absorbers) to remove components that may be corrosive or damaging to other parts of the system. Refrigerated condensers are used as air pollution control devices for treating emission streams with high VOC concentrations (usually > 5,000 ppmv). Some industrial applications where refrigerated condensers are used include the dry cleaning industry, degreasers using VOC or halogenated solvents, transfer of volatile organic liquid or petroleum products, and vapors from storage vessels. VOC removal efficiencies may be in the 90-99% range.

Step 2 − Eliminate Technically Infeasible Control Options

Based on the information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from the surface coating line:

(1) Reduce/eliminate solvent usage:
In order for the tires to meet quality, performance, and safety specifications solvent must be used. Further significant solvent usage reductions are not possible for this process.

(2) Carbon Adsorption:
Adsorption is a technically infeasible option for the control of VOC emissions from the process because the activated carbon or zeolite adsorptivity of VOC is low. In addition, high-molecular weight condensable VOC compounds emitted as the result of rubber heating will coat the adsorbent and render it unusable.

(3) Recuperative Thermal Oxidizer:
It was noted that these devices are not generally recommended for controlling gases containing halogen-or sulfur-containing compounds, because of formation of hydrogen chloride, hydrogen fluoride, sulfur dioxide, and other highly corrosive gases. The emission stream from the rubber that is extruded on the tread end cementer contains sulfur compounds. As such, recuperative incineration is not considered a technically feasible option.

(4) Catalytic Incinerator:
Oils and large molecular weight compounds are a problem because they blind the catalyst. The process exhaust contains sulfur compounds, large molecular weight compounds, and dissolved rubber that would most likely deactivate and/or blind the catalyst. Catalytic incineration has never been used in the tire manufacturing industry. No recommended catalyst for this use was found. This technology was not considered technically feasible since it has not been proven in this type of operation and no recommended catalyst could be determined.

(5) Regenerative Thermal Oxidizer:
This control technology is technically feasible

(6) Incineration in boilers:
This control technology is technically feasible and is currently being used at the source

(7) Trickling bed filters:
Heptane elimination as a pure solvent and in mixtures was determined to be low in laboratory trickling be reactor study. Given these results, trickling bed reactors would not be technically feasible for the Michelin process.

(8) Biofiltration:
Effective biofiltration requires an emission stream of a pure low molecular weight water soluble chemical. The emission stream from the tread end cementing process contains a wide variety of chemical compounds from rubber off-gassing and the heptane and/or heptane/octane mixture that is used for tread end cementing. Heptane and octane are not water soluble. Considering the mixed emission stream and the insolubility in water, biofiltration was not feasible as a control option.

(9) Flare
The gas stream heat content is less than 300 Btu/scf. Given the fact that the heat content is minimal and that flares are typically recommended for use as safety devices, not pollution control devices, flaring is not considered technically feasible.

(10) Absorber/condenser
Based on the insolubility in water of the pollutant and the fact that the systems are typically not recommended for VOC control, these absorbers were considered technically infeasible.

(11) Condensation
Condensers are used for controlling VOC streams of > 5000ppmv and flow rates < 2000scfm. Since the exhaust stream from the process is in excess of 2000 scfm, condenser technology is not feasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

IDEM, OAQ has ranked the technically feasible control technologies and combinations of control technologies as follows:

Control Technology	Overall Control Efficiency (%)
Regenerative Thermal Oxidizer	65%
Boilers	65%

The overall control efficiency is based on minimum VOC capture efficiency of 69.43%, measured during the most recent stack test at the source (February 8, 2006), and a destruction efficiency of 98% with a buffer of 3% to accommodate any variation in capture efficiency in future stack tests. ((69.43% * 98%) - 3%) = 65%).

Step 4 – Evaluate the Most Effective Controls and Document Results

A review of EPA's RACT/BACT/LAER Clearinghouse (RBLC) and Indiana Air Permits identified the following previous BACT determinations for sources that operate under the SIC Code 3011 (Tires and Inner Tubes) or for process type code 99.015 (Rubber Tire Manufacturing and Retreading):

There are no other permits with a BACT determination issued in the state of Indiana for a source operating under the SIC of 3011 or for process type code 99.015 (Rubber Tire Manufacturing and Retreading).

Note: The sources are arranged by limits in descending order.

Plant	RBLC ID or Permit #	Date Issued and State	Facility	BACT Determination
BF Goodrich Tire Manufacturing	003-33726-00008	Pending	Tread end cementing	State BACT (326 IAC 8-1-6): Limit of 5.25 grams of VOC per tread after control, using boilers for VOC control.
Goodyear Tire and Rubber Co. Lawton Tire Plant [(a)]	2002-414-C PSD	12/11/2002 Oklahoma	Tread end cementing	PSD BACT Limit: 10.23 tons of VOC per year and no add-on control Limit of 10 grams of VOC per tire based on 40 CFR 60, Subpart BBB (NSPS for Rubber Tire Manufacturing Industry)
Michelin North America, Inc. US5 - Lexington Plant [(b)]	1560-0042-CX-R1	10/25/2011 South Carolina	Tire Building	Best management practices for the proper use, storage, and safe handling of the heptane used in the tire building process. No add-on control. Monthly VOC BACT limits: 1,726 pounds per 28 days 1,789 pounds per 29 days 1,850 pounds per 30 days 1,912 pounds per 31 days Using confidential information from this source, BF Goodrich Tire Manufacturing calculated the limited emission rate as greater than 10 grams of VOC per tread.
	1560-0042-CR	04/22/2004 South Carolina	Tire production	VOC limits based on 40 CFR 60, Subpart BBB (NSPS for Rubber Tire Manufacturing Industry) Vented to boiler for VOC control After control VOC limits:

Plant	RBLC ID or Permit #	Date Issued and State	Facility	BACT Determination
				544 kg per 28 days 565 kg per 29 days 603 kg per 30 days 693 kg per 35 days Using confidential information from this source, BF Goodrich Tire Manufacturing calculated the limited emission rate as 16.2 grams of VOC per tread.
	1560-0042-CM	11/09/2000 South Carolina	Tire Building (Michelin A, B, and C)	State LAER: Capture emissions and vent to boilers; Comply with 40 CFR 60, Subpart BBB (NSPS for Rubber Tire Manufacturing Industry); Best management practices for the solvent use, storage, and handling After control VOC limits: Michelin A - 544 kg per 28 days Michelin B - 636 kg per 28 days Michelin C - 606 kg per 28 days Proportional limits for 29, 30, 31, and 35 days also listed. Using confidential information from this source, BF Goodrich Tire Manufacturing calculated the limited emission rates as 16.2, 18.9, and 18.0 grams of VOC per tread, respectively.

(a) The only other BACT determination for tread end cementing that is documented in the RBLC is at the Goodyear Tire and Rubber Co. Lawton Tire Plant, which has a BACT limit of 10 grams per tread without the use of a control device. This is based on the limit in the Standards of Performance (NSPS) for the Rubber Tire Manufacturing Industry (40 CFR 60 Subpart BBB).

BF Goodrich Tire Manufacturing is proposing a more stringent BACT by using an add-on control (existing boilers) and 5.25 grams per tread, which is more stringent than 10 grams per tread.

(b) No further evaluation was conducted for the tire building and production processes at the Michelin North America, Inc. US5 - Lexington Plant because they are not similar operations and their BACT limits are equivalent to greater than 10 grams per tread after control using boilers for VOC control, which are less stringent that BF Goodrich Tire Manufacturing is proposing.

The only other technically feasible control option for the tread end cementers is a regenerative thermal oxidizer. BF Goodrich Tire Manufacturing estimated the costs of purchasing and operating a regenerative thermal oxidizer, included in Appendix C of this TSD. The total annualized cost of installing and operating an RTO is $369,758. At a control efficiency of 65%[(i)], the cost per ton of VOC destroyed in $4,525, which is considered economically feasible. However, there are additional energy and environmental impacts associated with combusting additional natural gas to operate a regenerative thermal oxidizer. Because the source is already currently operating four boilers and the tread end cementers are currently vented to these boilers for VOC control to comply with the NSPS, the added costs are negligible for operating the boilers as a VOC control device. Therefore, using the boilers is the most economically feasible option for controlling VOC emissions.

[(i)] The overall control efficiency of 65% is assumed for an RTO using the minimum capture efficiency of the existing control system (69.43%) and a VOC destruction efficiency of 98%, with a buffer of 3% to accommodate any variation in capture efficiency in future stack tests.

Step 5 – Select BACT

The tread end cementing process at BF Goodrich Tire Manufacturing is currently using boilers to control VOC emissions to below 10 grams per tread, which is more stringent than the existing BACT requirements at other facilities. Therefore, the BACT requirements will limit VOC emissions after control. The worst-case VOC input to the tread end cementers is 15 grams per tread. At a control efficiency of 65%, the after control VOC emission limit shall be 5.25 grams per tread.

Pursuant to 326 IAC 8-1-6, based on the BACT analysis mentioned above, IDEM, OAQ has determined that the following requirements represent BACT for the tread end cementers:

(a) VOC emissions after control from the three (3) tread end cementers (#1, #2, and Guilin) shall not exceed 5.25 grams per tread.

(b) One of the four boilers (#1, #2, #3 or #5) shall be in operation and controlling VOC emissions at all times the three (3) tread end cementers are in operation.

Appendix C: Cost Effectiveness for Control with RTO
Tread end cementing (EU-04)

Company Name: BF Goodrich Tire Manufacturing
Address City IN Zip: 18906 Highway 24 East, Woodburn, IN 46797
Significant Source Modification Number: 003-33726-00008
Part 70 Permit Renewal Number: 003-32577-00008
Reviewer: Ryan Graunke

RTO Purchase and Installation Cost Estimate				
Description	Quantity	Unit	Material/equipment/labor	
			Cost per unit	Total Cost
5000 SCFM RTO				
Design (per O'Neal's K. Satterfield)	1	lot	$ 20,000	$ 20,000
Megtec Systems generic quote	1	lot	$ 225,000	$ 225,000
Megtec installation	1	lot	$ 35,000	$ 35,000
Megtec start-up	1	lot	$ 25,000	$ 25,000
Freight	1	lot	$ 5,000	$ 5,000
Project Clean-up	1	lot	$ 7,500	$ 7,500
Misc. Steel	1	lot	$ 5,000	$ 5,000
Permits	1	lot	$ 10,000	$ 10,000
Sitework	1	lot	$ 5,000	$ 5,000
Concrete pad	1	lot	$ 8,000	$ 8,000
Construction materials testing	1	lot	$ 2,500	$ 2,500
Upgrade of supports to galvanized steel	1	lot	$ 5,000	$ 5,000
Gas piping (2" dia.)	1000	LF	$ 62.25	$ 62,250
Compressed air piping (3/4" dia.)	1000	LF	$ 29.85	$ 29,850
Duct (48" dia., 16 gauge)	100	LF	$ 577.02	$ 57,702
Duct support, painted	1	lot	$ 10,000	$ 10,000
Start-up controls	1	lot	$ 40,000	$ 40,000
Electrical Material	1	lot	$ 58,786	$ 58,786
Electrical Labor	1	lot	$ 49,340	$ 49,340
SUBTOTAL				$ 660,928
Miscellaneous (5%)	5%	Percent	N/A	$ 33,046
MPA/GE project management (7.5%)	7.5%	Percent	N/A	$ 52,048
TOTAL				**$ 746,022**
MPA/GE estimates by D. Steele (Civil), E. Weaver (Mechanical), G. Yanchuck (Electrical), and J. Leenman				

Annual Operating Cost Estimate				
Operating labor	2065	hours	$ 49.56	$ 102,341.40
Supervisory labor	413	hours	$ 49.56	$ 20,468.28
Maintenance labor	620	hours	$ 49.56	$ 30,702.42
Maintenance				$ 30,702.42
Natural gas @ $4.53/dekatherm	412000	Btu/hr	$ 0.0000045	$ 16,349.31
Electricity	85	kW/hr	$ 0.0571	$ 42,516.66
Overhead	6%	Percent	$ 153,512.10	$ 9,210.73
Taxes, insurance, administrative	5%	Percent	$ 225,000.00	$ 11,250.00
Capital recovery @ 7% interest and 10 yr-life	14.24%	Percent	$ 746,022.48	$ 106,216.82
TOTAL				**$ 369,758.04**

Cost per Ton Emissions Destroyed	
Total Annual Operating Costs	$ 369,758.04
Overall control efficiency (Capture + Destruction)	65%
Tons Destroyed	81.72
Cost per ton destroyed	$ 4,524.61

Methodology:
Total cost = Quantity * Cost per unit * (8760 hr/yr, if applicable)
Tons destroyed = PTE of tread end cementers (233.49 tons/yr) * (1 - Overall control efficiency)

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

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Dale Geller
BF Goodrich Tire Manufacturing
PO Box 277
Woodburn, IN 46797

DATE: January 8, 2014

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

SUBJECT: Final Decision
Part 70 Operating Permit Renewal
003-32577-00008

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:
William Dent Johnson – Plant Manager
Ginger Ellis – Regulatory Strategies
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

January 8, 2014

TO: Allen County Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: BF Goodrich Tire Manufacturing
Permit Number: 003-32577-00008

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

IDEM Staff	GHOTOPP 1/8/2014 BF Goodrich Tire Manufacturing 003-32577-00008 Final			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

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1		Dale Geller BF Goodrich Tire Manufacturing PO Box 277 Woodburn IN 46797-0277 (Source CAATS) via confirmed delivery									
2		William Dent Johnson Plant Mgr BF Goodrich Tire Manufacturing PO Box 277 Woodburn IN 46797-0277 *(RO CAATS)*									
3		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)*									
4		Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 *(Affected Party)*									
5		Mr. Jeff Coburn Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 *(Affected Party)*									
6		Ginger Ellis Regulatory Strategies 1020 Ladys Lane Anderson SC 29621 *(Consultant)*									
7		Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 *(Local Official)*									
8		Woodburn Town Council and Mayors Office PO Box 665 Woodburn IN 46797 *(Local Official)*									
9		Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 *(Health Department)*									
10		Allen County Public Library 4701 State Road 101 North Woodburn IN 46797 *(Library)*									
11		Ms. Diane Schaper 5630 N. Sampson Rd Woodburn IN 46797 *(Affected Party)*									
12		Ms. Ann Corral 4327 Locust Spring Place Fort Wayne IN 46804 *(Affected Party)*									
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